Louisville Metro Air Pollution Control District
701 West Ormsby Avenue, Suite 303
Louisville, Kentucky 40203-3137

Title V Operating Permit

Permit No.: O-0034-22-V Plant ID: 0034

Effective Date: 06/21/2022 Expiration Date: 06/30/2027

Permission is hereby given by the Louisville Metro Air Pollution Control District to operate the process(es) and equipment described herein which are located at:

Source: Caldwell Tanks, Inc
4000 Tower Rd
Louisville, KY 40219

Owner: Caldwell Tanks, Inc
4000 Tower Rd
Louisville, KY 40219

The applicable procedures of District Regulation 2.16 regarding review by the U.S. EPA and public participation have been followed in the issuance of this permit. Based on review of the application on file with the District, permission is given to operate under the conditions stipulated herein. If a renewal permit is not issued prior to the expiration date, the owner or operator may continue to operate in accordance with the terms and conditions of this permit beyond the expiration date, provided that a complete renewal application is submitted to the District no earlier than eighteen months and no later than six months prior to the expiration date.

Application No.: See **Application and Related Documents** table.

Administratively Complete Date: 05/25/2021
Public Notice Date: 05/05/2022
Proposed Permit Date: 05/05/2022

DocuSigned by:
BDAE2992DEB24D7...

Permit writer: Yiqiu Lin

Air Pollution Control Officer
6/21/2022

Table of Contents

Permit Revisions and Changes

Permit No.	Public Notice Date	Issue Date	Change Type	Description/Scope
134-97-TV	1/14/2001	9/28/2001	Initial	Initial Permit Issuance
134-97-TV (R1)	N/A	12/6/2002	Admin.	Incorporate new performance indicator range for Unit U1, control device C5
134-97-TV (R2)	9/6/2011	10/18/2011	Revision and renewal	Permit renewal; R.O. addition; For U2, add MACT, 40 CFR 63, Subpart MMMM; for U1, incorporate CAM Plan
O-0034-16-V	10/15/2016	11/18/2016	Renewal	Renew permit 134-97-TV (R2), incorporate construction permits 30506-11-C, 36880-13-C, and two emergency generators as an IA emission unit.
O-0034-16-V (R1)	N/A	4/11/2017	Admin.	Administrative changes on cover page, application document table, U5 requirements. Addition of Attachment D – CAM Plan.
O-0034-16-V (R2)	N/A	6/14/2017	Admin.	Calculation Methodology Table: correct U3 emission factor due to transcription error of the quoted value in previous versions. Provide equivalent alternate values for E1 – E3.
O-0034-22-V	5/5/2022	6/21/2022	Renewal	Standard permit renewal.

Construction Permit Summary

Permit No.	Issue Date	Description
30506-11-C	3/31/2011	One burn table with two plasma cutting-heads and associated equipment.
36880-13-C	5/3/2013	One burn table with a single plasma cutting-head and associated equipment.

Application and Related Documents

Document Number	Date	Description
217177	5/5/2021	Email related to Title V renewal application
217557	5/6/2021	Email related to Title V renewal application

Document Number	Date	Description
219023	5/10/2021	Questions regarding renewal application
221845	5/21/2021	Title V renewal application
222763	5/25/2021	Title V application completeness review sent to company
222821	5/25/2021	Hard copy Title V renewal application
261071	9/22/2021	Request for updated EA Demo
265451	10/8/2021	Updated EA Demo submitted by Caldwell Tanks
310138	2/11/2022	Caldwell Tanks' comments to pre-draft Title V permit
336451	4/28/2022	Company response that there are no more comments on pre-draft Title V permit

Abbreviations and Acronyms

AP-42	- AP-42**,** *Compilation of Air Pollutant Emission Factors, published by U.S.EPA*
APCD	- Louisville Metro Air Pollution Control District
BAC	- Benchmark Ambient Concentration
BACT	- Best Available Control Technology
Btu	- British thermal unit
CEMS	- Continuous Emission Monitoring System
CFR	- Code of Federal Regulations
CO	- Carbon monoxide
District	- Louisville Metro Air Pollution Control District
EA	- Environmental Acceptability
gal	- U.S. fluid gallons
GHG	- Greenhouse Gas
HAP	- Hazardous Air Pollutant
Hg	- Mercury
hr	- Hour
in.	- Inches
lbs	- Pounds
l	- Liter
LMAPCD	- Louisville Metro Air Pollution Control District
mmHg	- Millimeters of mercury column height
MM	- Million
(M)SDS	- (Material) Safety Data Sheet
NAICS	- North American Industry Classification System
NO_x	- Nitrogen oxides
PM	- Particulate Matter
PM_{10}	- Particulate Matter less than 10 microns
$PM_{2.5}$	- Particulate Matter less than 2.5 microns
ppm	- parts per million
PSD	- Prevention of Significant Deterioration
psia	- Pounds per square inch absolute
QA	- Quality Assurance
RACT	- Reasonably Available Control Technology
SIC	- Standard Industrial Classification
SIP	- State Implementation Plan
SO_2	- Sulfur dioxide
STAR	- Strategic Toxic Air Reduction
TAC	- Toxic Air Contaminant
UTM	- Universal Transverse Mercator
VOC	- Volatile Organic Compound
w.c.	- Water column
year	- Any period of twelve consecutive months, unless "calendar year" is specified
yr	- Year, or any 12 consecutive-month period, as determined by context

Preamble

Title V of the Clean Air Act Amendments of 1990 (the Act) required EPA to create an operating permit program for implementation by state or local air permitting authorities. The purposes of this program are: (1) to require an affected company to assume full responsibility for demonstrating compliance with applicable regulations; (2) to capture all of the regulatory information pertaining to an affected company in a single document; and (3) to make permits more consistent with each other.

A company is subject to the Title V program if it meets any of several criteria related to the nature or amount of its emissions. The Title V operating permit specifies what the affected company is, how it may operate, what its applicable regulations are, how it will demonstrate compliance, and what is required if compliance is not achieved. In Jefferson County, Kentucky, the Louisville Metro Air Pollution Control District (LMAPCD or APCD) is responsible for issuing Title V permits to affected companies and enforcing local regulations and delegated federal and state regulations. EPA may enforce federal regulations but not "District Only Enforceable Regulations."

Title V offers the public an opportunity to review and comment on a company's draft permit. It is intended to help the public understand the company's compliance responsibility under the Clean Air Act. Additionally, the Title V process provides a mechanism to incorporate new applicable requirements. Such requirements are available to the public for review and comment before they are adopted.

Title V Permit General Conditions define requirements that are generally applicable to all Title V companies under the jurisdiction of LMAPCD. This avoids repeating these requirements in every section of the company's Title V permit. Company-specific conditions augment the General Conditions as necessary; these appear in the sections of the permit addressing individual emission units or emission points.

The General Conditions include references to regulatory requirements that may not currently apply to the company, but which provide guidance for potential changes at the company or in the regulations during the life of the permit. Such requirements may become applicable if the company makes certain modifications or a new applicable requirement is adopted.

When the applicability of a section or subpart of a regulation is unclear, a clarifying citation will be made in the company's Title V permit at the emission unit/point level. Comments may also be added at the emission unit/point level to give further clarification or explanation.

The owner or operator's Title V permit may include a current table of "insignificant activities."

Insignificant activities are defined in District Regulation 2.16, section 1.23, as of the date the permit was proposed for review by U.S. EPA, Region 4.

Insignificant activities identified in District Regulation 1.02, section 1.38, and Appendix A may be subject to size or production rate disclosure requirements pursuant to Regulation 2.16, section 3.5.4.1.4.

Insignificant activities identified in District Regulation 1.02, section 1.38, and Appendix A shall comply with generally applicable requirements as required by Regulation 2.16, section 4.1.9.4.

General Conditions

G1. **Compliance** - The owner or operator shall comply with all applicable requirements and with all terms and conditions of this permit. Any noncompliance shall constitute a violation of the Act, State, and District regulations and shall cause the source to be subject to enforcement actions including, but not limited to, the termination, revocation and reissuance, or revision of this permit, or denial of a permit application to renew this permit. Notwithstanding any other provision in the Jefferson County portion of the Kentucky SIP approved by EPA, any credible evidence may be used for the purpose of establishing whether the owner or operator is in compliance with, has violated, or is in violation of any such plan.
[Regulation 2.16, sections 4.1.3, 4.1.13.1, and 4.1.13.7]

G2. **Compliance Certification** - The owner or operator shall certify, annually, or more frequently if required in applicable regulations, compliance with the terms and conditions contained in this permit, including emission limitations, standards, or work practices. This certification shall meet the requirements of Regulation 2.16, sections 3.5.11 and 4.3.5. The owner or operator shall submit the annual compliance certification (Form 9400-O) directly to the EPA and to the District, as set forth in Regulation 2.16, section 4.3.5.4, at the following addresses:

US EPA - Region IV
Air Enforcement Branch
Atlanta Federal Center
61 Forsyth Street
Atlanta, GA 30303-8960

Air Pollution Control District
701 W. Ormsby Avenue, Suite 303
Louisville, Kentucky 40203-3137

The owner or operator shall submit the Compliance Certification on or before April 15 of each year, or other such due date as required by another applicable regulation.

G3. **Compliance Schedule** - The owner or operator shall submit a schedule of compliance for each emission unit that is not in compliance with all applicable requirements. A compliance schedule must meet the requirements of Regulation 2.16, section 3.5.9.5. A schedule of compliance shall be supplemental to, and shall not condone noncompliance with, the applicable requirements on which it is based. For each schedule of compliance, the owner or operator shall submit certified progress reports at least semi-annually, or at a more frequent period if specified in an applicable requirement or by the District in accordance with Regulation 2.16, section 4.3.4. The progress reports shall contain:

a. Dates for achieving the activities, milestones, or compliance required in the schedule of compliance, and dates when activities, milestones, or compliance were achieved.

b. An explanation of why dates in the schedule of compliance were not or will not be met, and preventive or corrective measures adopted.

G4. **Duty to Supplement or Correct Application** - If the owner or operator fails to submit relevant facts or has submitted incorrect information in the permit application, they shall, upon discovery of the occurrence, promptly submit the supplementary facts or corrected information in accordance with Regulation 2.16, section 3.4.

G5. **Emergency Provision**

a. An emergency shall constitute an affirmative defense to an enforcement action brought for noncompliance with technology-based emission limitations if the conditions in Regulation

2.16 are met. The affirmative defense of emergency shall be demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that:

i. An emergency occurred and that the owner or operator can identify the cause of the emergency;

ii. The permitted facility was at the time being properly operated;

iii. During the period of the emergency the owner or operator expeditiously took all reasonable steps, consistent with safe operating practices, to minimize levels of emissions that exceeded the emission standards or other requirements in this permit; and

iv. The owner or operator submitted notice meeting the requirements of Regulation 1.07 of the time when emissions limitations were exceeded because of the emergency. This notice must fulfill the requirement of this condition, and must contain a description of the emergency, any steps taken to mitigate emissions, and any corrective actions taken.

b. In an enforcement proceeding, the owner or operator seeking to establish the occurrence of an emergency has the burden of proof.

c. This condition is in addition to any emergency or upset provision contained in an applicable requirement. [Regulation 2.16, sections 4.7.1 through 4.7.4]

G6. **Emission Fees Payment Requirements** - The owner or operator shall pay annual emission fees in accordance with Regulation 2.08, section 1.3. Failure to pay the emissions fees when due shall constitute a violation of District Regulations. Such failure is subject to penalties and an increase in the fee of an additional 5% per month up to a maximum of 25% of the original amount due. In addition, failure to pay emissions fees within 60 days of the due date shall automatically suspend this permit to operate until the fee is paid or a schedule for payment acceptable to the District has been established. [Regulation 2.08, section 1.2.5]

G7. **Emission Offset Requirements** - The owner or operator shall comply with the requirements of Regulation 2.04.

G8. **Enforceability Requirements** - Except for the conditions that are specifically designated as District-Only Enforceable Conditions, all terms and conditions of this permit, including any provisions designed to limit a source's potential to emit, are enforceable by EPA and citizens as specified under the Act. [Regulation 2.16, sections 4.2.1 and 4.2.2]

G9. **Enforcement Action Defense**

a. It shall not be a defense for the owner or operator in an enforcement action that it would have been necessary for the owner or operator to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

b. The owner or operator's failure to halt or reduce activity may be a mitigating factor in assessing penalties for noncompliance if the health, safety or environmental impacts of halting or reducing operations would be more serious than the impacts of continued operation. [Regulation 2.16, sections 4.1.13.2 and 4.1.13.3]

G10. **Hazardous Air Pollutants and Sources Categories** - The owner or operator shall comply with the applicable requirements of Regulations 5.02 and 5.14.

G11. **Information Requests** - The owner or operator shall furnish to the District, within a reasonable time, information requested in writing by the District, to determine whether cause exists for revising, revoking and reissuing, or terminating this permit, or to determine compliance with this

permit. The owner or operator shall also furnish, upon request, copies of records required to be kept by this permit. [Regulation 2.16, section 4.1.13.6]

If information is submitted to the District under a claim of confidentiality, the source shall submit a copy of the confidential information directly to EPA at the address shown in General Condition 35.b. [Regulation 2.07, section 10.2]

G12. **Insignificant Activities** - The owner or operator shall:

a. Notify the District in a timely manner of any proposed change to an insignificant activity that would require a permit revision. [Regulation 2.16, Section 5]

b. Submit a current list of insignificant activities by April 15 of each year with the annual compliance certification, including an identification of the additions and removals of insignificant activities that occurred during the preceding year. [Regulation 2.16, section 4.3.5.3.6]

G13. **Inspection and Entry** - Upon presentation of credentials and other documents as required by law, the owner or operator shall allow the District or an authorized representative to perform the following during reasonable hours: [Regulation 2.16, section 4.3.2]

a. Enter the premises to inspect any emissions-related activity or records required in this permit.

b. Have access to and copy records required by this permit.

c. Inspect facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required by this permit.

d. Sample or monitor substances or parameters to assure compliance with this permit or any applicable requirements.

G14. **Monitoring and Related Record Keeping and Reporting Requirement** - The owner or operator shall comply with the requirements of Regulation 2.16, section 4.1.9. Unless specified elsewhere in this permit, the owner or operator shall complete required monthly record keeping within 30 days following the end of each calendar month. The owner or operator shall submit all required monitoring reports at least once every six months, unless more frequent reporting is required by an applicable requirement. The reporting period shall be 1 January through 30 June and 1 July through 31 December of each calendar year. All reports shall be sent to the District at the address shown in paragraph 2 of these General Conditions and must be submitted by the 60th day following the end of each reporting period, unless specified elsewhere in this permit. If surrogate operating parameters are monitored and recorded in lieu of emission monitoring, then an exceedance of multiple parameters may be deemed a single violation by the District for enforcement purposes. All reports shall include the company name, plant ID number, and the beginning and ending date of the reporting period. The compliance reports shall clearly identify any deviation from a permit requirement or a declaration that there were no such deviations. All semi-annual compliance reports shall include the statement "Based on information and belief formed after reasonable inquiry, I certify that the statements and information in this document are true, accurate, and complete" and the signature and title of a responsible official of the company.

The semi-annual compliance reports are due on or before the following dates of each calendar year:

Reporting Period	Report Due Date
January 1 - June 30	August 29
July 1 - December 31	March 1 of the following year

If a change in the responsible official (RO) occurs during the term of this permit, or if an RO is added, the owner or operator shall provide written notification (Form AP-100A) to the District within 30 calendar days of such change or addition.

G15. **Off-permit Documents** - Any applicable requirements, including emission limitations, control technology requirements, or work practice standards, contained in an off-permit document cannot be changed without undergoing the permit revision procedures in Regulation 2.16, Section 5. [Regulation 2.16, section 4.1.5]

G16. **Operational Flexibility** - The owner or operator may make changes without permit revision in accordance with Regulation 2.16, section 5.8.

G17. **Permit Amendments (Administrative)** - This permit can be administratively amended by the District in accordance with Regulation 2.16, section 5.4.

G18. **Permit Application Submittal** - The owner or operator shall submit a timely and complete application for permit renewal or significant revision. If the owner or operator submits a timely and complete application, then the owner or operator's failure to have a permit is not a violation until the District takes formal action on this permit application. This protection shall cease to apply if, subsequent to completeness determination, the owner or operator fails to submit, by the deadline specified in writing by the District, additional information required to process the application as required by Regulation 2.16, sections 3 and 5.2.

G19. **Permit Duration** - This permit is issued for a fixed term of 5 years, in accordance with Regulation 2.16, section 4.1.8.3.

G20. **Permit Renewal, Expiration and Application** - Permit renewal, expiration and application procedural requirements shall be in accordance with Regulation 2.16, sections 4.1.8.2 and 5.3. This permit may only be renewed in accordance with section 5.3.

G21. **Permit Revisions** - No permit revision shall be required under any approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes that are provided for in the permit. [Regulation 2.16, section 4.1.16]

G22. **Permit Revision Procedures (Minor)** - Except as provided in 40 CFR Part 72, the Acid Rain Program, this permit may be revised in accordance with Regulation 2.16, section 5.5.

G23. **Permit Revision Procedures (Significant)** - A source seeking to make a significant permit revision shall meet all the Title V requirements for permit applications, issuance and Permit renewal, in accordance with Regulation 2.16, section 5.7, and all other applicable District Regulations.

G24. **Permit Termination and Revocation by the District** - The District may terminate this permit only upon written request of the owner or operator. The District may revoke a permit for cause, in accordance with Regulation 2.16, section 5.11.1 through 5.11.6. For purposes of section 5.11.1, substantial or unresolved noncompliance includes, but is not limited to:

a. Knowingly operating process or air pollution control equipment in a manner not allowed by an applicable requirement or that results in excess emissions of a regulated air pollutant that would endanger the public or the environment;

b. Failure or neglect to furnish information, analyses, plans, or specifications required by the District;

c. Knowingly making any false statement in any permit application;

d. Noncompliance with Regulation 1.07, section 4.2; or

e. Noncompliance with KRS Chapter 77.

G25. **Permit Shield** - The permit shield shall apply in accordance with Regulation 2.16, section 4.6.1.

G26. **Prevention of Significant Deterioration of Air Quality** - The owner or operator shall comply with the requirements of Regulation 2.05.

G27. **Property Rights** - This permit shall not convey property rights of any sort or grant exclusive privileges in accordance with Regulation 2.16, section 4.1.13.5.

G28. **Public Participation** - Except for modifications qualifying for administrative permit amendments or minor permit revision procedures, all permit proceedings shall meet the requirements of Regulations 2.07, Section 1; and 2.16, sections 5.1.1.2 and 5.5.4.

G29. **Reopening for Cause** - This permit shall be reopened and revised by the District in accordance with Regulation 2.16, section 5.9.

G30. **Reopening for Cause by EPA** - This permit may be revised, revoked and reissued or terminated for cause by EPA in accordance with Regulation 2.16, section 5.10.

G31. **Risk Management Plan [112(r)]** - For each process subject to section 112(r) of the Act, the owner or operator shall comply with 40 CFR Part 68 and Regulation 5.15.

G32. **Severability Clause** - The conditions of this permit are severable. Therefore, if any condition of this permit, or the application of any condition of this permit to any specific circumstance, is determined to be invalid, the application of the condition in question to other circumstances, as well as the remainder of this permit's conditions, shall not be affected.
[Regulation 2.16, section 4.1.12]

G33. **Stack Height Considerations** - The owner or operator shall comply with the requirements of Regulation 2.10.

G34. **Startups, Shutdowns, and Upset Conditions Requirements** - The owner or operator shall comply with the requirements of Regulation 1.07.

G35. **Submittal of Reports, Data, Notifications, and Applications**

a. Applications, reports, test data, monitoring data, compliance certifications, and any other document required by this permit as set forth in Regulation 2.16, sections 3.1, 3.3, 3.4, 3.5, 4.1.13.6, 5.8.5 and 5.12 shall be submitted to:

Air Pollution Control District
701 West Ormsby Avenue, Suite 303
Louisville, Kentucky 40203-3137

b. Documents that are specifically required to be submitted to EPA, as set forth in Regulation 2.16, sections 3.3 and 5.8.5 shall be mailed to EPA at:

US EPA - Region IV
APTMD - 12th floor
Atlanta Federal Center
61 Forsyth Street
Atlanta, GA 30303-3104

G36. **Other Applicable Regulations** - The owner or operator shall comply with all applicable requirements of the following:

Regulation	Title
1.01	General Application of Regulations and Standards
1.02	Definitions
1.03	Abbreviations and Acronyms
1.04	Performance Tests
1.05	Compliance With Emissions Standards and Maintenance Requirements
1.06	Source Self-Monitoring, Emission Inventory Development and Reporting
1.07	Excess Emissions During Startups, Shutdowns, and Upset Conditions
1.08	Administrative Procedures
1.09	Prohibition of Air Pollution
1.10	Circumvention
1.11	Control of Open Burning
1.14	Control of Fugitive Particulate Emissions
1.18	Rule Effectiveness
1.19	Administrative Hearings
2.01	General Application (Permit Requirements)
2.02	Air Pollution Regulation Requirements and Exemptions
2.03	Authorization to Construct or Operate; Demolition/Renovation Notices and Permit Requirements
2.04	Construction or Modification of Major Sources in or Impacting Upon Non-Attainment Areas (Emission Offset Requirements)
2.05	Prevention of Significant Deterioration
2.06	Permit Requirements – Other Sources
2.07	Public Notification for Title V, PSD, and Other Offset Permits; SIP Revisions; and Use of Emission Reduction Credits
2.09	Causes for Permit Modification, Revocation, or Suspension
2.10	Stack Height Considerations
2.11	Air Quality Model Usage
3.01	Ambient Air Quality Standards
4.01	General Provisions for Emergency Episodes
4.02	Episode Criteria
4.03	General Abatement Requirements
4.04	Particulate and Sulfur Dioxide Reduction Requirements
4.05	Hydrocarbon and Nitrogen Oxides Reduction Requirements
4.06	Carbon Monoxide Reduction Requirements
4.07	Episode Reporting Requirements
6.01	General Provisions (Existing Affected Facilities)
6.02	Emission Monitoring for Existing Sources
7.01	General Provisions (New Affected Facilities)

District Only Enforceable Regulations:

Regulation	Title
1.12	Control of Nuisances
1.13	Control of Objectionable Odors
2.08	Emission Fee, Permit Fees and Permit Renewal Procedures
2.16	Title V Operating Permits
5.00	Definitions
5.01	General Provisions
5.02	Adoption and Incorporation by Reference of National Emission Standards for Hazardous Air Pollutants
5.14	Hazardous Air Pollutants and Source Categories
5.15	Chemical Accident Prevention Provisions
5.20	Methodology for Determining Benchmark Ambient Concentration of a Toxic Air Contaminant
5.21	Environmental Acceptability for Toxic Air Contaminants
5.22	Procedures for Determining the Maximum Ambient Concentration of a Toxic Air Contaminant
5.23	Categories of Toxic Air Contaminants
7.02	Adoption and Incorporation by Reference of Federal New Source Performance Standards

G37. **Stratospheric Ozone Protection Requirements** - Any facility having refrigeration equipment, including air conditioning equipment, which uses Class I or II Controlled Substances (listed in 40 CFR 82, Subpart A, Appendices A and B) or non-exempt substitutes, and any facility which maintains, services, or repairs motor vehicles using a Class I or II substance as refrigerant must comply with all requirements of 40 CFR 82, Subparts A, B, and F. Those requirements include the following restrictions:

a. Any facility having any refrigeration equipment that normally contains fifty pounds of refrigerant or more must keep servicing records documenting the date and type of all service and the quantity of any refrigerant added, according to 40 CFR 82.166;

b. No person repairing or servicing a motor vehicle may perform any service on a motor vehicle air conditioner (MVAC) involving the refrigerant for such air conditioner unless the person has been properly trained and certified as provided in 40 CFR 82.34 and 40 CFR 82.40, and properly uses equipment approved according to 40 CFR 82.36 and 40 CFR 82.38, and complies with 40 CFR 82.42;

c. No person may sell or distribute, or offer for sale or distribution, any substance listed as a Class I or II Controlled Substance in 40 CFR 82, Subpart A, Appendices A and B, except in compliance with 40 CFR 82.34(b), 40 CFR 82.42, and/or 40 CFR 82.166;

d. No person maintaining, servicing, repairing, or disposing of appliances may knowingly vent or otherwise release into the atmosphere any Class I or II substance used as a refrigerant in such equipment and no other person may open appliances (except MVACs as defined in 40 CFR 82.152) for service, maintenance, or repair unless the person has been

properly trained and certified according to 40 CFR 82.161 and unless the person uses equipment certified for that type of appliance according to 40 CFR 82.158 and unless the person observes the practices set forth in 40 CFR 82.156 and 40 CFR 82.166;

e. No person may dispose of appliances (except small appliances, as defined in 40 CFR 82.152) without using equipment certified for that type of appliance according to 40 CFR 82.158 and without observing the practices set forth in 40 CFR 82.156 and 40 CFR 82.166;

f. No person may recover refrigerant from small appliances, MVACs and MVAC-like appliances (as defined in 40 CFR 82.152), except in compliance with the requirements of 40 CFR 82 Subpart F;

g. If the permittee manufactures, transforms, imports, or exports, a Class I or II Controlled Substance (listed in 40 CFR 82, Subpart A, Appendices A and B), the permittee is subject to all requirements as specified in 40 CFR 82 Subpart A, Production and Consumption Controls. [Regulation 2.16, section 4.1.5]

Plantwide Requirements

Facility Description

Caldwell Tanks Inc. processes steel plates, pipes and other tank components through the shot blast systems to remove rust and scale, then cuts the plates to desired dimensions and forms and fabricates the plates into various parts. The parts are processed through the surface coating operation for application of primer coatings. The parts are then shipped to the consumer's desired location where they are assembled on-site.

Applicable Regulations

FEDERALLY ENFORCEABLE REGULATIONS		
Regulation	**Title**	**Applicable Sections**
2.16	Title V Operating Permits	1 through 6

DISTRICT ONLY ENFORCEABLE REGULATIONS		
Regulation	**Title**	**Applicable Sections**
5.00	Definitions	1, 2
5.01	General Provisions	1 through 2
5.20	Methodology for Determining Benchmark Ambient Concentration of a Toxic Air Contaminant	1 through 6
5.21	Environmental Acceptability for Toxic Air Contaminants	1 through 5
5.22	Procedures for Determining the Maximum Ambient Concentration of a Toxic Air Contaminant	1 through 5
5.23	Categories of Toxic Air Contaminants	1 through 6
STAR regulations are 5.00, 5.01, 5.20, 5.21, 5.22, and 5.23		

Plantwide Specific Conditions

S1. Standards
[Regulation 2.16, section 4.1.1]

a. TAC

i. The owner or operator shall not allow emissions of any TAC to exceed environmentally acceptable (EA) levels, whether specifically established by modeling or determined by the District to be *de minimis*. (See Comment 1) [Regulations 5.00 and 5.21]

ii. The owner or operator shall perform a new Environmental Acceptability (EA) Demonstration or de minimis determination when the following events occur and submit the EA Demonstration on the schedule noted in the reporting section:[1]

(1) An application to construct or modify a process or process equipment is submitted to the District pursuant to Regulation 2.03, 2.04 or 2.05. [Regulation 5.21, section 4.22.1]

(2) A modification of any physical modeling parameters such as fence lines or building heights that are not otherwise subject to the requirements in this permit that affects the demonstration of compliance. [Regulation 5.21, section 4.22.2]; or

(3) A change occurs in the process or process equipment, including raw material or fuel type substitution.
[Regulation 5.21, section 4.22.3]

iii. When a new TAC is introduced or for any existing TAC which does not have an established BAC or *de minimis* value, the owner or operator shall calculate and report these values as part of any aforementioned EA Demonstration. The form, located in Attachment C, may be used for determining BAC and *de minimis* values.
[Regulation 5.20, sections 3 and 4]

S2. Monitoring and Record Keeping
[Regulation 2.16, section 4.1.9.1 and 4.1.9.2]

The owner or operator shall maintain the following records for a minimum of five years and make the records readily available to the District upon request.

[1] Changes to the air dispersion modeling program or meteorological data used in the most recent Environmental Acceptability Demonstration do not trigger the requirement to perform a new Environmental Acceptability Demonstration.

a. TAC

i. The owner or operator shall maintain records sufficient to demonstrate environmental acceptability, including, but not limited to (M)SDS, analysis of emissions, and/or modeling results.

S3. Reporting
[Regulation 2.16, section 4.1.9.3]

The owner or operator shall report the following information, as required by General Condition G14:

a. TAC

i. The owner or operator shall submit new EA Demonstrations involving applications to construct or modify with the construction permit application. [Regulation 5.21, section 4.22.1]

ii. The owner or operator shall submit new EA Demonstrations involving modification of any physical modeling parameter, such as fence lines or building heights, that are not otherwise subject to the permit requirements for that facility that affects the demonstration of compliance with the operating permit renewal application. [Regulation 5.21, section 4.22.2]

iii. The owner or operator shall submit new EA Demonstrations involving a change in a process or process equipment, including raw material or fuel type substitution before making the change.
[Regulation 5.21, section 4.22.3]

(1) Prior approval by the District is not required if the change does not result in emissions that exceed an EA goal, does not cause emissions of a TAC to no longer be de minimis, and a permit modification is not required. In this case, the new EA Demonstration shall be submitted within 6 months of the change.

S4. Testing
[Regulation 2.16, section 4.3.1]

a. General Requirements
These conditions apply for all testing unless superseded by requirements listed in the individual emission units.

i. Devices of adequately similar design may be represented by a common performance test contingent upon review and approval of the testing protocol by the District.

ii. Before conducting a performance test, the owner or operator shall submit a written test plan (protocol). The plan shall include the EPA test methods that will be used for testing, the process operating parameters that will be monitored during the performance test, and the control device performance indicators that will be monitored during the performance test. The test plans shall be furnished to the District at least 30 calendar days prior to the actual date of the performance test. Appendix B - Protocol Checklist for a Performance Test to this permit provides information that must be submitted in the protocol.

iii. The owner or operator shall be responsible for obtaining and analyzing audit samples when the EPA Reference Method is used to analyze samples, to demonstrate compliance with the source's emission regulation. The audit samples shall be available for verification by the District during the on-site testing.

iv. The owner or operator shall provide the District at least 10 working days prior notice of any performance test to afford the District the opportunity to have an observer present.

v. The owner or operator shall furnish the District with a written report of the results of the performance test within 60 calendar days following the actual date of completion of the performance test.

vi. The owner or operator shall use the most recent District-accepted performance test results to demonstrate compliance with the emission limits and in the annual emission inventory reporting.

vii. If performance testing is not completed by the required date, then the company shall calculate emissions using expired test result data, methods such as EPA-approved emission factors and guidance documents such as EIIP and AP-42, or other methods upon written approval by the District, whichever results in the greater (more conservative) emissions.

Comments for Plantwide Requirements

1. Caldwell Tanks submitted the TAC Environmental Acceptability Demonstration to the District in 2 February 2007, 31 March 2008, 9 August 2011, 19 March 2012, 23 June 2014, 3 June 2016, and 8 October 2021. SCREEN 3 and Tier 4 AERMOD air dispersion modeling were performed for emission units that have non-de minimis TAC emissions. Compliance with the STAR EA Goals was demonstrated in the revised EA Demonstration. The District reviewed the EA Demonstrations submitted by the source. The following table demonstrates that the carcinogen risk and non-carcinogen risk values comply with the STAR EA goals required in Regulation 5.21.

Plantwide Sum	Existing & new		All new P/PE	
Industrial Total R_C	**7.08**	< 75		< 38
Non-Ind. Total R_C	**1.07**	< 7.5		< 3.8
Industrial Total R_{NC} (max)	**1.21**	< 3.0		
Non-Ind. Total R_{NC} (max)	**0.23**	< 1.0		

		R_{NC} Total		**U1 - Blast Booths**				**U2 - paint Booths**				**U5 - Plasma Cutters**			
		Indus.	Non-Ind	Industrial		Non-Indus		Industrial		Non-Indus		Industrial		Non-Indus	
TAC	CAS #	R_{NC}	R_{NC}	R_C	R_{NC}	R_C	R_{NC}	R_C	R_{NC}	R_C	R_{NC}	R_C	R_{NC}	R_C	R_{NC}
R_C Total / R_{NC} Max		**1.21**	**0.23**	**2.21**		**0.33**		**0.00**		**0.00**		**4.88**		**0.74**	
Chromium^{+6}	7440-47-3	0.03	0.004	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.62	0.03	0.40	0.004
Nickel	7440-02-0	1.21	0.18	2.21	0.60	0.33	0.09	0.00	0.00	0.00	0.00	2.26	0.61	0.34	0.09
Manganese	7439-96-5	1.01	0.15	0.00	1.01	0.00	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Xylene	1330-20-7	0.24	0.23	0.00	0.00	0.00	0.00	0.00	0.24	0.00	0.23	0.00	0.00	0.00	0.00

Emission Unit U1: Abrasive Blast Booths

Applicable Regulations

FEDERALLY ENFORCEABLE REGULATIONS		
Regulation	**Title**	**Applicable Sections**
6.09	Standards of Performance for Existing Process Operations	1, 2, 3, 5
7.08	Standards of Performance for New Process Operations	1, 2, 3

DISTRICT ONLY ENFORCEABLE REGULATIONS		
Regulation	**Title**	**Applicable Sections**
5.00	Definitions	1, 2
5.01	General Provisions	1 through 2
5.20	Methodology for Determining Benchmark Ambient Concentration of a Toxic Air Contaminant	1 through 6
5.21	Environmental Acceptability for Toxic Air Contaminants	1 through 5
5.22	Procedures for Determining the Maximum Ambient Concentration of a Toxic Air Contaminant	1 through 5
5.23	Categories of Toxic Air Contaminants	1 through 6
STAR regulations are 5.00, 5.01, 5.20, 5.21, 5.22, and 5.23		

Equipment

Emission Point	Description	Install Date	Applicable Regulations	Control ID	Release ID
E1	Wheelabrator blast booth, make Wheelabrator, serial # A-122157, capacity 198,000 lb/hr internal circulation rate.[2] (16’ x 9’ x 4’high, 8836 cfm airflow)	1968	STAR, 6.09	C1	Vent Indoors
E2	Shot blast booth, make Clemco, serial# 133231, capacity 825 lb/hr. (58’ x 16’ x 15’high, 20,000 cfm airflow)	1988	STAR, 7.08	C2	Vent Indoors

[2] Using emission factors obtained from March 29, 2011 stack test, the potential pre-control emissions for E1, E2, and E3 are less than the major source threshold. Therefore, these blast booths are not subject to 40 CFR Part 64 - Compliance Assurance Monitoring (CAM).

Emission Point	Description	Install Date	Applicable Regulations	Control ID	Release ID
E3	Pipeabrator blast booth, make US Filter/BCP, serial # A4-8279, capacity 132,000 lb/hr internal circulation rate, equipped with an air wash separator and a storage tank/hopper. (23’ x 5.5’ x 6’ high, 7000 cfm airflow)	1998	STAR, 7.08	C3	Vent Indoors

Control Devices

Control ID	Description	Control Efficiency
C1	Cartridge-type baghouse, make Carbo-Tech, model 9-4-1800 CUPFL, installed 1968	98%
C2	Baghouse, make DCE, model DLM 2/7/15, installed 1988	98% **Error! Bookmark not defined.**
C3	Cartridge-type baghouse, make Farr, model 16D-T3 installed 1998	98%

U1 Specific Conditions

S1. Standards
[Regulation 2.16, section 4.1.1]

a. Opacity

i. The owner or operator shall not allow visible emissions from any abrasive blasting equipment to equal or exceed 20% opacity.
[Regulation 6.09, section 3.1 and Regulation 7.08, section 3.1.1]

b. PM

i. The owner or operator shall not allow PM emissions from Wheelabrator blast booth (E1) to exceed 51.2 lb/hr, based on actual operating hours in a calendar day.[3] [Regulation 6.09, section 3.2]

ii. The owner or operator shall not allow PM emissions from Clemco blast booth (E2) to exceed 2.34 lb/hr, based on actual operating hours in a calendar day.[3] [Regulation 7.08, section 3.3.1]

iii. The owner or operator shall not allow PM emissions from Pipeabrator blast booth (E3) to exceed 33.8 lb/hr, based on actual operating hours in a calendar day.[3] [Regulation 7.08, section 3.3.1]

c. TAC

i. The owner or operator shall not allow TAC emissions to exceed the amounts shown in Table 1 in any 12-month consecutive period.[4]
[Regulation 5.21, section 4.3]

Table 1 - Emission unit U1 TAC emission standards [5]

Emission Points	Mn	Ni	Cr^{+3}
E1-Wheelabrator	74.5 (lb/12 consecutive month)	12.4 (lb/12 consecutive month)	De Minimis Values
E2-Blast booth	De Minimis Values	De Minimis Values	De Minimis Values

[3] It has been demonstrated that the PM emissions, calculated using emission factors from 2011 stack test (E1, E3) and AP-42, 13.2.6 (E2), cannot exceed the lb/hr PM emission standard uncontrolled.

[4] The TAC emission limits for E1, E2, and E3 are established based on updated EA Demonstration submitted by Caldwell Tanks on October 8, 2021. It has been demonstrated through modeling that the EA goals can be met from the Wheelabrator (E1) and Pipeabrator (E3) and emissions from blast booth E2 can be de minimis with controls. Therefore, the owner or operator is required to operate the control devices to meet the TAC standards.

[5] Current De Minimis values: Mn – 24 lb/yr, 0.027 lb/hr; Ni – 1.824 lb/yr, 0.00205 lb/hr; Cr^{+3} – 0.1 lb/8 hr, 0.1 lb/hr

Emission Points	Mn	Ni	Cr^{+3}
E3-Pipeabrator	49.7 (lb/12 consecutive month)	8.3 (lb/12 consecutive month)	De Minimis Values

ii. At all time, including periods of startup, shutdown, and malfunction, the owner or operator shall, to the extent practicable, maintain and operate the blast equipment (E1, E2, and E3) including associated particulate control devices (C1, C2, and C3) in a manner consistent with good air pollution control practice for minimizing emissions. [4]
[Regulation 1.05, section 5] [Regulation 5.21, section 4.2 and section 4.3]

iii. See Plantwide Requirements.

S2. Monitoring and Record Keeping
[Regulation 2.16, section 4.1.9.1 and 4.1.9.2]

The owner or operator shall maintain the following records for a minimum of five years and make the records readily available to the District upon request.

a. Opacity

i. The owner or operator shall monthly, conduct a one-minute visible emissions survey, during normal operation, of the emission points (E1, E2, and E3). No more than four emission points shall be observed simultaneously. The opacity surveys may be performed at the building exhaust points if the process is inside an enclosure.

ii. At emission points where visible emissions are observed, the owner or operator shall initiate corrective action within eight hours of the initial observation. If the visible emissions persist, perform or cause to be performed a Method 9 visual determination of opacity, in accordance with 40 CFR Part 60, Appendix A, within 24 hours of the initial observation.

iii. The owner or operator shall, monthly, maintain records (or weekly records for alternative operating scenarios) of the results of all visible emissions surveys and Method 9 determinations performed. The records shall include the date of the survey, the name of the person conducting the survey, whether or not visible emissions were observed, and what, if any, corrective action was performed. If an emission point is not being operated during a given period, then no visible emission survey needs to be performed and a negative declaration shall be entered in the record.

b. PM

i. The owner or operator shall monitor and record the pressure drop across the baghouses at least once each operating day during normal operation of the

equipment. Take corrective action if the pressure drop for any baghouse is out of the normal pressure drop range, shown in Table 1. It is acceptable that the pressure drop be less than the minimum shown in the table for the first 200 hours of operation after a filter change, if it is first verified that all filters are intact and properly seated.

Table 1 – Normal pressure drop across control device filters

Control Device	**Normal differential pressure** (inches of water)
C1 - Carbo-Tech, model 9-4-1800 CUPFL	2.0 – 6.0
C2 - DCE, model DLM 2/7/15	0.75 – 5
C3 - Farr, model 16D-T3	2.0 – 8.0

c. TAC

i. The owner or operator shall monitor and maintain daily record of any period of time when the shot blast booths were operating and the associated baghouses were not operating, or a declaration that the baghouses operated at all times that day when the shot blast booths were operating. If there is any time that the associated baghouses were bypassed or not in operation when the shot blast booths were operating, then the owner or operator shall keep a record of the following for each bypass event:

(1) Date;

(2) Start time and stop time;

(3) Identification of the control device and process equipment;

(4) TAC emissions for each TAC. The resulting emissions estimate shall be accounted for in any 12 consecutive month total emissions for each set of consecutive 12 month periods which includes the bypass event;

(5) Summary of the cause or reason for each bypass event;

(6) Corrective action taken to minimize the extent or duration of the bypass event; and

(7) Measures implemented to prevent reoccurrence of the situation that resulted in the bypass event.

(8) If this event is due to an upset condition, you must report as specified in District regulation 1.07, section 4.

ii. Calculate the monthly and 12-consecutive-month TAC emission for any TAC with an emission standard.

iii. See Plantwide Requirements.

S3. Reporting
[Regulation 2.16, section 4.1.9.3]

The owner or operator shall report the following information, as required by General Condition G14:

a. Opacity

i. Any deviation from the requirement to perform monthly visible emission surveys or Method 9 determinations;

ii. Any deviation from the requirement to record the results of each VE survey and Method 9 determination performed;

iii. The number, date, and time of each VE survey where visible emissions were observed, and the results of the Method 9 determination performed;

iv. Identification of all periods of exceeding an opacity standard; and

v. Description of any corrective action taken for each exceedance of the opacity standard.

b. PM

i. The owner or operator shall identify all periods of the pressure drop across the control device C1, C2, and C3 exceeding the normal range and any corrective action taken for each exceedance.

c. TAC

i. Actual TAC emissions at each emission point for each TAC with an emission standard, using the methodology described in Attachment A.

ii. Any deviation from the requirement to use the associated baghouses at all times the shot blast booths are in operation. The report shall include the following:

(1) The date and duration (including the start and stop time) of each by-pass to the atmosphere;

(2) Calculated quantity of TAC emitted, in pounds, for each bypass;

(3) Corrective action taken as a result of the baghouse bypass;

(4) Summary information on the cause or reason for the baghouse bypass and measures implemented to prevent reoccurrence of the bypass.

iii. See Plantwide Requirements.

Emission Unit U2: Paint Spray Booths

Applicable Regulations

FEDERALLY ENFORCEABLE REGULATIONS		
Regulation	**Title**	**Applicable Sections**
1.05	Compliance with Emission Standards and Maintenance Requirements	1.1, 4.1, 4.1.1
6.09	Standards of Performance for Existing Process Operations	1, 2, 3, 5
6.31	Standard of Performance for Existing Miscellaneous Metal Parts and Products Surface Coating Operations	1 - 7
40 CFR 63 Subpart MMMM	National Emission Standards for Hazardous Air Pollutants for Surface Coating of Miscellaneous Metal Parts and Products	63.3880 through 63.3981

DISTRICT ONLY ENFORCEABLE REGULATIONS		
Regulation	**Title**	**Applicable Sections**
5.00	Definitions	1, 2
5.01	General Provisions	1 through 2
5.02	Adoption and Incorporation by Reference of National Emission Standards for Hazardous Air Pollutants	1, 2, 4.74
5.20	Methodology for Determining Benchmark Ambient Concentration of a Toxic Air Contaminant	1 through 6
5.21	Environmental Acceptability for Toxic Air Contaminants	1 through 5
5.22	Procedures for Determining the Maximum Ambient Concentration of a Toxic Air Contaminant	1 through 5
5.23	Categories of Toxic Air Contaminants	1 through 6
STAR regulations are 5.00, 5.01, 5.20, 5.21, 5.22, and 5.23		

Equipment

Emission Point	Description	Install Date	Applicable Regulations	Control ID	Release ID
E4	Custom-made paint booth, designated as South Paint Booth #1. 19,900 cfm exhaust per stack	1975	1.05, STAR, 5.02, 6.09, 6.31,	C4, C5	S1, S2

Emission Point	Description	Install Date	Applicable Regulations	Control ID	Release ID
E5	Custom-made paint booth, designated as North Paint Booth #2. 19,900 cfm exhaust per stack	1975	40CFR63, Subpart MMMM	C6, C7	S3, S4

Control Devices

Control ID	Description	Control Efficiency
C4, C5	Custom-made dry filter consisted of primary pre-filters and secondary pleated filters, Koch102-701-022 and 541-055-90 OR PaintPocket 04CC99202152P, or equivalent	95%
C6, C7	Custom-made dry filter consisted of primary pre-filters and secondary pleated filters, Koch102-701-022 and 541-055-90 OR PaintPocket 04CC99202152P, or equivalent	95%

U2 Specific Conditions

S1. Standards
[Regulation 2.16, section 4.1.1]

a. HAP

i. The affected source subject to these limits is the collection of all of the following components that are used for surface coating of miscellaneous metal parts and products: [40 CFR 63.3882(b)]

(1) All coating operations as defined in §63.3981;

(2) All storage containers and mixing vessels in which coatings, thinners and/or other additives, and cleaning materials are stored or mixed;

(3) All manual and automated equipment and containers used for conveying coatings, thinners and/or other additives, and cleaning materials; and

(4) All storage containers and all manual and automated equipment and containers used for conveying waste materials generated by a coating operation.

ii. For an existing affected source, you must limit organic HAP emissions to the atmosphere from the affected source to the applicable limit specified in paragraphs (b)(2): [40 CFR 63.3890(b)]

(1) For each existing general use coating affected source, limit organic HAP emissions to no more than 0.31 kg (2.6 lb) organic HAP per liter (gal) coating solids used during each 12-month compliance period.. [40 CFR 63.3890(b)(1)]

iii. You must include all coatings (as defined in §63.3981), thinners and/or additives, and cleaning materials used in the affected source when determining whether the organic HAP emission rate is equal to or less than the applicable emission limit, set forth in the previous paragraph and specified in §63.3890(b). To make this determination, you must use at least one of the compliance options specified in 40 CFR 63.3891.[6] You may apply any of the compliance options to an individual coating operation, or to multiple coating operations as a group, or to the entire affected source. You may use different compliance options for different coating operations or at different times on the same coating operation. You may employ

[6] This regulation allows for three options to demonstrate compliance: (1) 'use of compliant materials' [§63.3891(a)], (2) 'emission rate without add-on controls' [§63.3891(b)], or (3) 'emission rate with add-on controls' [§63.3891(c)]. Caldwell Tanks has historically used the second option (for which the requirements are set forth in this permit), but is not restricted from using either of the other methods in the future, provided that they follow the compliance protocols and reporting requirements set forth in 40 CFR 63, Subpart MMMM.

different compliance options when different coatings are applied to the same part, or when the same coating is applied to different parts. However, you may not use different compliance options at the same time on the same coating operation. If you switch between compliance options for any coating operation or group of coating operations, you must document this switch as required by §63.3930(c), and you must report it in the next semiannual compliance report required in §63.3920. [40 CFR 63.3891]

(1) *Emission rate without add-on controls option.* The owner or operator must demonstrate that, based on the coatings, thinners, and/or other additives, and cleaning material used in the coating operation(s), the organic HAP emission rate for the coating operation(s) is less than or equal to set forth in the previous paragraph and specified in §63.3890(b), calculated as a rolling 12-month emission rate and determined on a monthly basis.
[40 CFR 63.3891(b)]

iv. Any coating operation(s) for which you use the *emission rate without add-on controls* compliance option must be in compliance with the emission limit specified above and in 63.3890(b) at all times.
[40 CFR 63.3900(a)(1)]

v. Before January 5, 2021, you must always operate and maintain your affected source, including all air pollution control and monitoring equipment you use for purposes of complying with this subpart, according to the provisions in §63.6(e)(1)(i). On and after January 5, 2021, at all times, the owner or operator must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require the owner or operator to make any further efforts to reduce emissions if levels required by the applicable standard have been achieved. Determination of whether a source is operating in compliance with operation and maintenance requirements will be based on information available to the Administrator that may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the affected source.
[40 CFR 63.3900(b)]

b. Opacity

i. The owner or operator shall not allow visible emissions from the spray booth to equal or exceed 20% opacity. [Regulation 6.09, section 3.1]

c. PM

i. The owner or operator shall not allow PM emissions from either paint booth E4 or E5 to exceed 2.58 lb/hr based on actual operating hours in a calendar day.[7] [Regulation 6.09, section 3.2]

ii. At all time, including periods of startup, shutdown, and malfunction, the owner or operator shall, to the extent practicable, maintain and operate the paint booths (E4 and E5) including associated particulate control devices (C4, C5, C6, and C7) in a manner consistent with good air pollution control practice for minimizing emissions. [Regulation 1.05, section 5]

d. TAC

i. See Plantwide Requirements.[8]

e. VOC

i. The owner or operator shall not cause or allow the emission of VOC from any affected facility resulting from the coating of metallic surfaces in excess of the amounts shown in Table 3. Compliance with these emission limits shall be based on a calendar-day averaging period. If more than one limit in Table 3 applies for a specific coating, the least stringent limit shall apply. [Regulation 6.31, section 3.1]

Table 3 - Allowable VOC content for Miscellaneous Metal Coating

Coating Description	VOC content (kg/l)	VOC content (lb/gal)
	(Less water and exempt solvents)	
Clear coats	0.52	4.3
Air-dried coating	0.42	3.5
Extreme-performance coating	0.42	3.5
All other coatings	0.36	3.0

[7] Caldwell Tanks performed a compliance demonstration for PM in the second 2001 semi-annual compliance report and demonstrated that the controlled PM emissions from the paint booths cannot exceeded the hourly PM emission limit. Therefore, the requirements to use filters at all time and monitor the pressure drop across the filters, as a surrogate of the requirement of monthly PM calculation, will ensure compliance with PM standard. Should a new coating with higher solids content be introduced to the process a new demonstration must be submitted.

[8] Caldwell Tanks has identified six category 2 TACs in the paints in use at the facility and there were no category 1 TACs: 1,6 Hexamethylene diisocyanate, polymeric diphenylmethane diisocyanate, ethylene glycol monopropyl ether, trimethyl benzene, and xylene. Xylene was the only category 2 TAC reported in the 2006 Toxics Release Inventory (TRI). Modeling submitted 20 June 2014 demonstrates that the uncontrolled potential emission of xylene was environmentally acceptable.

S2. Monitoring and Record Keeping
[Regulation 2.16, section 4.1.9.1 and 4.1.9.2]

The owner or operator shall maintain the following records for a minimum of five years and make the records readily available to the District upon request.

a. HAP

i. The owner or operator shall meet the following requirements to demonstrate continuous compliance with emission limitation when using the *emission rate without add-on controls* option.

(1) To demonstrate continuous compliance, the organic HAP emission rate for each compliance period must be less than or equal to the emission limit in the HAP Standards of this permit and in §63.3890(b). A compliance period consists of 12 months. Each month is the end of a compliance period consisting of that month and the preceding 11 months. To determine the organic HAP emission rate for each compliance period, you must perform the following calculations on a monthly basis using data from the previous 12 months of operation. [40 CFR 63.3952(a)]

(a) *Determine the mass fraction of organic HAP for each material.* The owner or operator shall determine the mass fraction of organic HAP for each coating, thinner and/or other additive, and cleaning material used during each month using one of the methods specified in §63.3941(a). [40 CFR 63.3951(a)]

(b) *Determine the volume fraction of coating solids.* The owner or operator shall determine the volume fraction of coating solids [liter (gal) of coating solids per liter (gal) of coating] for each coating used during each month using one of the methods specified in §63.3941(b). [40 CFR 63.3951(b)]

(c) *Determine the density of each material.* The owner or operator shall determine the density of each liquid coating, thinner and/or other additive, and cleaning material used during each month from test results using ASTM Method D1475-98, "Standard Test Method for Density of Liquid Coatings, Inks, and Related Products" (incorporated by reference, see §63.14); information from the supplier or manufacturer of the material; or reference sources providing density or specific gravity data for pure materials. If you are including powder coatings in the compliance determination, determine the density of powder coatings, using ASTM Method D5965- 02, "Standard Test Methods for Specific Gravity of Coating Powders" (incorporated by reference, see §63.14), or information from the supplier. If there is

disagreement between ASTM Method D1475-98 or ASTM Method D5965-02 test results and other such information sources, the test results will take precedence unless, after consultation, you demonstrate to the satisfaction of the enforcement agency that the formulation data are correct. If you purchase materials or monitor consumption by weight instead of volume, you do not need to determine material density. Instead, you may use the material weight in place of the combined terms for density and volume in Equations 1A, 1B, 1C, and 2, below. [40 CFR 63.3951(c)]

(d) *Determine the volume of each material used.* The owner or operator shall determine the volume (liters) of each coating, thinner and/or other additive, and cleaning material used during each month by measurement or usage records. If you purchase materials or monitor consumption by weight instead of volume, you do not need to determine the volume of each material used. Instead, you may use the material weight in place of the combined terms for density and volume in Equations 1A, 1B, and 1C, below.
[40 CFR 63.3951(d)]

(e) *Calculate the mass of organic HAP emissions.* The mass of organic HAP emissions is the combined mass of organic HAP contained in all coatings, thinners and/or other additives, and cleaning materials used during each month minus the organic HAP in certain waste materials. The owner or operator shall calculate the mass of organic HAP emissions using Equation 1. [40 CFR 63.3951(e)]

$$H_e = A + B + C - R_w$$

where:

H_e = Total mass of organic HAP emissions during the month, kg;

A = Total mass of organic HAP in the coatings used during the month, kg, as calculated in Equation 1A.

B = Total mass of organic HAP in the thinners and/or other additives used during the month, kg, as calculated in Equation 1B.

C = Total mass of organic HAP in the cleaning materials used during the month, kg, as calculated in Equation 1C.

R_w = Total mass of organic HAP in waste materials sent or designated for shipment to a hazardous waste TSDF for treatment or

disposal during the month, in kg, determined according to paragraph (e)(4) of §63.3951. (You may assign a value of zero to R_w if you do not wish to use this allowance.)

(i) Calculate the kg organic HAP in the coatings used during the month using Equation 1A: [40 CFR 63.3951(e)(1)]

$$A = \sum_{i=1}^{m} (Vol_{c,i})(D_{c,i})(W_{c,i})$$

where:

A = Total mass of organic HAP in the coatings used during the month, kg;

$Vol_{c,i}$ = Total volume of coating *i* used during the month, liters;

$D_{c,i}$ = Density of coating *i*, kg coating per liter coating;

$W_{c,i}$ = Mass fraction of organic HAP in coating *i*, kg organic HAP per kg coating;

M = Number of different coatings used during the month.

(ii) Calculate the kg of organic HAP in the thinners and/or other additives used during the month using Equation 1B: [40 CFR 63.3951(e)(2)]

$$B = \sum_{j=1}^{m} (Vol_{t,j})(D_{t,j})(W_{t,j})$$

where:

B = Total mass of organic HAP in the thinners and/or other additives used during the month, kg;

$Vol_{t,j}$ = Total volume of thinner and/or other additive *j* used during the month, liters;

$D_{t,}$ = Density of thinner and/or other additive *j*, kg per liter;

$W_{t,j}$ = Mass fraction of organic HAP in thinner and/or other additive *j*, kg organic HAP per kg thinner and/or other additive;

N = Number of different thinners and/or other additives used during the month.

(iii) Calculate the kg organic HAP in the cleaning materials used during the month using Equation 1C: [40 CFR 63.3951(e)(3)]

$$C = \sum_{k=1}^{p} (Vol_{s,k})(D_{s,k})(W_{s,k})$$

where:

C = Total mass of organic HAP in the cleaning materials used during the month, kg;

$Vol_{s,k}$ = Total volume of cleaning material *k* used during the month, liters;

$D_{s,k}$ = Density of cleaning material *k*, kg per liter;

$W_{s,k}$ = Mass fraction of organic HAP in cleaning material *k*, kg organic HAP per kg material;

P = Number of different cleaning materials used during the month.

(iv) If you choose to account for the mass of organic HAP contained in waste materials sent or designated for shipment to a hazardous waste TSDF in Equation 1 of this section, then you must determine the mass according to paragraphs §63.3951(e)(4)(i) through (iv). [40 CFR 63.3951(e)(4)]

(f) *Determine the total volume of coating solids used.* Determine the total volume of coating solids used, liters, which is the combined volume of coating solids for all the coatings used during each month, using Equation 2: [40 CFR 63.3951(f)]

$$V_{st} = \sum_{i=1}^{m} (Vol_{c,i})(V_{s,i})$$

where:

V_{st} =Total volume of coating solids used during the month, liters;

$Vol_{c,i}$ =Total volume of coating *i* used during the month, liters.

$V_{s,i}$ =Volume fraction of coating solids for coating *i*, liter solids per liter coating, determined according to §63.3941(b).

M =Number of coatings used during the month.

(g) *Calculate the organic HAP emission rate.* Calculate the organic HAP emission rate for the compliance period, kg organic HAP emitted per liter coating solids used, using Equation 3: [40 CFR 63.3951(g)]

$$H_{yr} = \frac{\sum_{y=1}^{n} H_e}{\sum_{y=1}^{n} V_{st}}$$

where:

H_{yr} =Average organic HAP emission rate for the compliance period, kg organic HAP emitted per liter coating solids used.

H_e =Total mass of organic HAP emissions from all materials used during month *y*, kg, as calculated by Equation 1.

V_{st} =Total volume of coating solids used during month *y*, liters, as calculated by Equation 2.

y =Identifier for months.

n =Number of full or partial months in the compliance period (for all compliance periods, n equals 12).

ii. Regardless of the compliance method the owner or operator shall maintain the following records:

(1) The owner or operator must collect and keep records of the data and information below. Failure to collect and keep these records is a deviation from the applicable standard. [40 CFR 63.3930]

(a) A copy of each notification and report that you submitted to comply with Subpart MMMM, and the documentation supporting each notification and report.
[40 CFR 63.3930(a)]

(b) A current copy of information provided by materials suppliers or manufacturers, such as manufacturer's formulation data, or test data used to determine the mass fraction of organic HAP and density for each coating, thinner and/or other additive, and cleaning material, and the volume fraction of coating solids for each coating. If you conducted testing to determine mass fraction of organic HAP, density,

or volume fraction of coating solids, you must keep a copy of the complete test report. If you use information provided to you by the manufacturer or supplier of the material that was based on testing, you must keep the summary sheet of results provided to you by the manufacturer or supplier. You are not required to obtain the test report or other supporting documentation from the manufacturer or supplier. [40 CFR 63.3930(b)]

(c) For each compliance period, the following records: [40 CFR 63.3930(c)]

(i) A record of the coating operations on which you used each compliance option and the time periods (beginning and ending dates and times) for each option you used. [40 CFR 63.3930(c)(1)]

(ii) For the *emission rate without add-on controls* option, a record of the calculation of the total mass of organic HAP emissions for the coatings, thinners and/or other additives, and cleaning materials used each month using Equations 1, 1A through 1C, and 2, and, if applicable, the calculation used to determine mass of organic HAP in waste materials according to §63.3951(e)(4); the calculation of the total volume of coating solids used each month using Equation 2; and the calculation of each 12-month organic HAP emission rate using Equation 3. [40 CFR 63.3930(c)(3)]

(2) A record of the name and volume of each coating, thinner and/or other additive, and cleaning material used during each compliance period. [(40 CFR 63.3930(d)]

(3) A record of the mass fraction of organic HAP for each coating, thinner and/or other additive, and cleaning material used during each compliance period unless the material is tracked by weight. [40 CFR 63.3930(e)]

(4) A record of the volume fraction of coating solids for each coating used during each compliance period. [40 CFR 63.3930(f)]

(5) If you use the *emission rate without add-on controls* compliance option, the density for each coating, thinner and/or other additive, and cleaning material used during each compliance period. [40 CFR 63.3930(g)]

(6) If you use an allowance in Equation 1 for organic HAP contained in waste materials sent to or designated for shipment to a treatment, storage, and disposal facility (TSDF) according to §63.3951(e)(4),

you must keep records of the information specified in paragraphs §63.3930(h)(1) through (3) as follows: [40 CFR 63.3930(h)]

(a) The name and address of each TSDF to which you sent waste materials for which you use an allowance in Equation 1; a statement of which subparts under 40 CFR parts 262, 264, 265 , and 266 apply to the facility; and the date of each shipment. [40 CFR 63.3930(h)(1)]

(b) Identification of the coating operations producing waste materials included in each shipment and the month or months in which you used the allowance for these materials in Equation 1 of §63.3951. [40 CFR 63.3930(h)(2)]

(c) The methodology used in accordance with §63.3951(e)(4) to determine the total amount of waste materials sent to or the amount collected, stored, and designated for transport to a TSDF each month; and the methodology to determine the mass of organic HAP contained in these waste materials. This must include the sources for all data used in the determination, methods used to generate the data, frequency of testing or monitoring, and supporting calculations and documentation, including the waste manifest for each shipment. [40 CFR 63.3930(h)(3)]

(7) The owner or operator shall keep records of the date, time, and duration of each deviation. [40 CFR 63.3930(j)]

iii. The owner or operator shall keep records in the form and time period as the following:

(1) The owner or operator must keep records in a form suitable and readily available for expeditious review. Where appropriate, the records may be maintained as electronic spreadsheets or as a database. [40 CFR 63.3931(a)]

(2) You must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. [40 CFR 63.3931(b)]

(3) The owner or operator must keep each record on-site for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record. You may keep the records off-site for the remaining 3 years. [40 CFR 63.3931(c)]

iv. The owner or operator shall maintain a copy of the Safety Data Sheet (SDS) for each HAP-containing material used at this plant.
[Regulation 2.16, section 4.1.9]

b. Opacity

i. The owner or operator shall, at least once per calendar month, inspect the filters in the paint booths to ensure proper installation (i.e. proper alignment/placement, gaps, etc.) and replace as needed.

ii. The owner or operator shall keep a record that shows the date and the name of the person who inspected the filters and if filters were replaced.

c. PM

i. The owner or operator shall, at least once per calendar week, monitor and record the pressure drop across the filters.[9] The owner or operator shall take corrective action if the pressure drop across the filters outside of the normal pressure drop range of 0.05-2.0 inches water column.

ii. The owner or operator shall monitor and maintain daily records of any periods of time where the paint booths were operating, and the filters were damaged or not used or record a declaration that the filters were properly in place at all times that day when the paint booth was operating. If there was any time during which any filters were not in place when the paint booths were operating, keep a record of the following:

(1) Date;

(2) Start time and stop time of the filter bypass event;

(3) Identification of the control device and process equipment;

(4) PM emissions for each hour during the bypass, in lb/hr, using the methodology described in Attachment A;

(5) Summary of the cause or reason for each bypass event;

(6) Corrective action taken to minimize the extent or duration of the bypass event; and

(7) Measures implemented to prevent reoccurrence of the situation that resulted in the bypass event.

(8) If this event is due to an upset condition, you must report as specified in District regulation 1.07, section 4.

d. TAC

i. See Plantwide Requirements.

[9] Caldwell Tanks performed a compliance demonstration for PM in the second 2001 semi-annual compliance report and demonstrated that the controlled PM emissions from the paint booths cannot exceeded the hourly PM emission limit. Therefore, the requirements to use filters at all time and monitor the pressure drop across the filters, as a surrogate of the requirement of monthly PM calculation, will ensure compliance with PM standard. Should a new coating with higher solids content be introduced to the process a new demonstration must be submitted.

e. VOC

i. The owner or operator shall maintain records that include, but not be limited to, the following: [Regulation 6.31, section 6.1]

(1) The regulation and section number applicable to the affected facility for which the records are being maintained,

(2) The application method and substrate type (metal, plastic, etc.) [10]

(3) The amount and type of coatings (including catalyst and reducer for multi-component coatings) and solvent (including exempt compounds) used at each point of application during the averaging period.

(4) The VOC content as applied in each coating and solvent,

(5) The date, or usage record period, for each application of coating and solvent,

(6) The amount of surface preparation, clean-up, wash-up of solvent (including exempt compounds) used and the VOC content of each material used during the averaging period.

ii. The VOC content shall be calculated using a percent solids basis (excluding water and exempt solvents) for coatings using EPA Method 24. [Regulation 6.31, section 6.2]

iii. The averaging period weighted average VOC content, which means the VOC content of two or more coatings as applied on a coating line during any averaging period and weighted according to the fraction of the total coating volume that each coating represents, shall be calculated using the following equation: [11]

$$VOC_{\mathrm{W}} = \sum_{\mathrm{i}=1}^{\mathrm{n}} \frac{\mathrm{V_i C_i}}{\mathrm{VT}}$$

where:

VOC_w =The average VOC content of two or more coatings as applied each averaging period on a coating line, in kg VOC/l (lb of VOC/gal) of coating, excluding water and exempt solvents.

[10] Application method will be HVLP spray gun application of solvent-based paint, and the substrate type will be metal. Compliance with this paragraph may be demonstrated by maintaining a one-time record of this information and notification to APCD if any changes to this information occur.

[11] The weighted average VOC content shall be calculated based on a calendar-day averaging period. By performing the daily record keeping, as defined in Regulation 6.31, the owner or operator complies with the requirements of Regulation 1.05, section 4.1.1.

V_i =The volume of each coating as applied each averaging period on a coating line in units of liters (gallons), excluding water and exempt solvents.

C_i =The VOC content of each coating as applied each averaging period on a coating line in units of kg of VOC/l (lb of VOC/gal) of coating, excluding water and exempt solvents.

VT =The total volume of all coatings as applied each averaging period on a coating line in units of liters (gallons), excluding water and exempt solvents.

n =The number of different coatings as applied each averaging period on a coating line.

S3. Reporting

[Regulation 2.16, section 4.1.9.3]

The owner or operator shall report the following information, as required by General Condition G14:

a. HAP

i. *General Requirements.* The semi-annual compliance report must contain the information specified in §63.3920, paragraphs (a)(3)(i) through (vii) , and the information specified in §63.3920, paragraphs (a)(4) through (7) and (c)(1) that are applicable to your affected source as follows:
[40 CFR 63.3920(a)(3)]

(1) Company name and address. [40 CFR 63.3920(a)(3)(i)]

(2) Statement by a responsible official with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report. [40 CFR 63.3920(a)(3)(ii)]

(3) Date of report and beginning and ending dates of the reporting period. The reporting period is the 6-month period ending on June 30 or December 31. Note that the information reported for each of the 6 months in the reporting period will be based on the last 12 months of data prior to the date of each monthly calculation.
[40 CFR 63.3920(a)(3)(iii)]

(4) Identification of the compliance option or options specified in 63.3891 that you used on each coating operation during the reporting period. If you switched compliance options during the reporting period, you must report the beginning and ending dates for each option you used. [40 CFR 63.3920(a)(3)(iv)]

(5) The calculations results for the organic HAP emission rate (in lb_{HAP}/gal_{solids}) for each rolling 12-month period during the 6-month reporting period. [40 CFR 63.3920(a)(3)(v)]

ii. *No deviations*. [12] If there were no deviations from the emission limitations in §§63.3890(b), 63.3892, and 63.3893 that apply to you, the semiannual compliance report must include a statement that there were no deviations from the emission limitations during the reporting period.
[40 CFR 63.3920(a)(4)]

iii. *Deviations*: If there was a deviation from the applicable emission limit in the HAP Standards of this permit and §63.3890(b), the semiannual compliance report must contain the following information:
[40 CFR 63.3920(a)(6)]

(1) The beginning and ending dates of each compliance period during which the 12-month organic HAP emission rate exceeded the applicable emission limit in §63.3890(b);
[40 CFR 63.3920(a)(6)(i)]

(2) The calculations used to determine the 12-month organic HAP emission rate for the compliance period in which the deviation occurred. You must submit the calculations for Equations 1, 1A through 1C, 2, and 3 of §63.3951; and if applicable, the calculation used to determine mass of organic HAP in waste materials according to §63.3951(e)(4). You do not need to submit background data supporting these calculations (e.g., information provided by materials suppliers or manufacturers, or test reports);
[40 CFR 63.3920(a)(6)(ii)]

(3) A statement of the cause of each deviation.
[40 CFR 63.3920(a)(6)(iii)]

iv. As part of each semiannual compliance report required by §63.3920, you must identify the coating operation(s) for which you used the *emission rate without add-on controls* option. If there were no deviations from the emission limitations, you must submit a statement that the coating operation(s) was (were) in compliance with the emission limitations during

[12] Deviation means any instance in which an affected source subject to Subpart MMMM, or an owner or operator of such a source: (40 CFR 63.3981)
(1) Before January 5, 2021, any instance in which an affected source subject to this subpart, or an owner or operator of such a source:
(i) Fails to meet any requirement or obligation established by this subpart including but not limited to, any emission limit or operating limit or work practice standard;
(ii) Fails to meet any term or condition that is adopted to implement an applicable requirement in this subpart and that is included in the operating permit for any affected source required to obtain such a permit; or
(iii) Fails to meet any emission limit, or operating limit, or work practice standard in this subpart during SSM, regardless of whether or not such failure is permitted by this subpart; and
(2) On and after January 5, 2021, any instance in which an affected source subject to this subpart or an owner or operator of such a source:
(i) Fails to meet any requirement or obligation established by this subpart including but not limited to any emission limit, operating limit, or work practice standard; or
(ii) Fails to meet any term or condition that is adopted to implement an applicable requirement in this subpart and that is included in the operating permit for any affected source required to obtain such a permit.

the reporting period because the organic HAP emission rate for each compliance period was less than or equal to the applicable emission limit in the HAP Standards of this permit and §63.3890(b), determined according to §63.3951(a) through (g). [40 CFR 63.3952(c)]

v. *Inclusion with Title V report.* Each affected source that has obtained a Title V operating permit pursuant to 40 CFR part 70 or 40 CFR part 71 must report all deviations as defined in 40 CFR Part 63, Subpart MMMM in the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A). If an affected source submits a semiannual compliance report pursuant to §63.3920 along with, or as part of, the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), and the semiannual compliance report includes all required information concerning deviations from any emission limitation in Subpart MMMM, its submission will be deemed to satisfy any obligation to report the same deviations in the semiannual monitoring report. However, submission of a semiannual compliance report shall not otherwise affect any obligation the affected source may have to report deviations from permit requirements to the permitting authority.[13]
[40 CFR 63.3920(a)(2)]

vi. *Dates.* Unless the District has approved or agreed to a different schedule for submission of reports under §63.10(a), you must prepare and submit each semiannual compliance report according to the dates specified in 40 CFR 63.3920(a)(1)(i) through (iv). Note that the information reported for each of the months in the reporting period will be based on the last 12 months of data prior to the date of each monthly calculation.[13]
[40 CFR 63.3920(a)(1)]

(1) Each semiannual compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31.
[40 CFR 63.3920(a)(1)(ii)]

(2) Each semiannual compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date is the first date following the end of the semiannual reporting period.
[40 CFR 63.3920(a)(1)(iii)]

(3) For each affected source that is subject to permitting regulations pursuant to 40 CFR part 70 or 40 CFR part 71, and if the permitting authority has established dates for submitting semiannual reports pursuant to 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), you may submit the first and subsequent compliance reports according to the dates the permitting authority has established

[13] 40 CFR 63.3920(a)(1) provides the option for the reporting company to submit these Subpart MMMM reports on the same schedule as the Title V operating permit reports.

instead of according to the date specified in paragraph (a)(1)(iii) of this section. [40 CFR 63.3920(a)(1)(iv)]

b. Opacity

i. The owner or operator shall report any deviation from the requirement to perform the monthly inspection of the filters during a reporting period.

c. PM

i. Any deviation from the requirement to use the filters at all times the paint booth is in operation. The report shall include the following:

(1) Emission Unit ID and Emission Point ID numbers;

(2) The date and duration (including the start and stop time) of each time the filters are damaged or not used while the paint booth is in operation;

(3) The PM emission rate, in lb/hr;

(4) Summary information on the cause or reason for missing or damaged filters and measures implemented to prevent reoccurrence of the situation that resulted in excess PM emissions.

d. TAC

i. See Plantwide Requirements.

e. VOC

i. All periods of exceeding a VOC emission standard during a reporting period. The report shall include the following:

(1) Emission Unit ID number and emission point ID number;

(2) The date and duration during which a deviation from the coating VOC limits occurred;

(3) The quantity of excess emissions;

(4) Summary information on the cause or reason for excess emissions;

(5) Corrective action taken to minimize the extent and duration of each excess emissions event;

(6) Measures implemented to prevent reoccurrence of the situation that resulted in excess VOC emissions;

Emission Unit U3: Non-halogenated Cold Solvent Parts Washers

Applicable Regulations

FEDERALLY ENFORCEABLE REGULATIONS		
Regulation	**Title**	**Applicable Sections**
6.18	Standards of Performance for Solvent Metal Cleaning Equipment	1, 2, 3, 4

DISTRICT ONLY ENFORCEABLE REGULATIONS		
Regulation	**Title**	**Applicable Sections**
5.00	Definitions	1, 2
5.01	General Provisions	1 through 2
5.20	Methodology for Determining Benchmark Ambient Concentration of a Toxic Air Contaminant	1 through 6
5.21	Environmental Acceptability for Toxic Air Contaminants	1 through 5
5.22	Procedures for Determining the Maximum Ambient Concentration of a Toxic Air Contaminant	1 through 5
5.23	Categories of Toxic Air Contaminants	1 through 6
STAR regulations are 5.00, 5.01, 5.20, 5.21, 5.22, and 5.23		

Equipment

Emission Point	Description	Install Date	Applicable Regulations	Control ID	Release ID
E6	Non-halogenated cold solvent metal parts washer with secondary reservoir, make Selig, rated capacity 30 gallon. (Insignificant activity)	1998	STAR, 6.18	N/A	N/A
E7	Non-halogenated cold solvent metal parts washer with secondary reservoir, make Selig, rated capacity 30 gallon. (Insignificant activity)	1998	STAR, 6.18	N/A	N/A

Control Devices

There are no control devices associated with this emission unit.

U3 Specific Conditions

S1. Standards
[Regulation 2.16, section 4.1.1]

a. VOC

i. The owner or operator shall install, maintain, and operate the control equipment as follows: [Regulation 6.18, section 4]

(1) The cold cleaner shall be equipped with a tightly fitting cover that is free of cracks, holes, or other defects. If the solvent is agitated or heated, then the cover shall be designed so that it can be easily operated with 1 hand. [Regulation 6.18, section 4.1.1]

(2) The cold cleaner shall be equipped with a drainage facility that is designed so that the solvent that drains off parts removed from the cleaner will return to the cold cleaner. The drainage facility may be external if the District determines that an internal type cannot fit into the cleaning system. [Regulation 6.18, section 4.1.2]

(3) A permanent, conspicuous label summarizing the operating requirements specified in Section 4.2 shall be installed on or near the cold cleaner. [Regulation 6.18, section 4.1.3]

(4) If used, the solvent spray shall be a fluid stream, not a fine, atomized, or shower type spray, at a pressure that does not cause excessive splashing. Flushing of parts using a flexible hose or other flushing device shall be performed only within the freeboard area of the cold cleaner. Solvent flow shall be directed downward to avoid turbulence at the air-solvent interface and to prevent solvent from splashing outside of the cold cleaner.
[Regulation 6.18, section 4.1.4]

(5) Work area fans shall be located and positioned so that they do not blow across the opening of the cold cleaner.
[Regulation 6.18, section 4.1.6]

(6) The solvent-containing portion of the cold cleaner shall be free of all liquid leaks. Auxiliary cold cleaner equipment such as pumps, water separators, steam traps, or distillation units shall not have any visible liquid leaks, visible tears, or cracks.
[Regulation 6.18, section 4.1.8]

ii. The owner or operator shall observe at all times the following operating requirements: [Regulation 6.18, section 4.2]

(1) Waste solvent shall neither be disposed of nor transferred to another party in a manner such that more than 20% by weight of the waste solvent can evaporate. Waste solvent shall be stored only in a covered container. A covered container may contain a device that

allows pressure relief, but does not allow liquid solvent to drain from the container. [Regulation 6.18, section 4.2.1]

(2) The solvent level in the cold cleaner shall not exceed the fill line. [Regulation 6.18, section 4.2.2]

(3) The cold cleaner cover shall be closed whenever a part is not being handled in the cold cleaner. [Regulation 6.18, section 4.2.3]

(4) Parts to be cleaned shall be racked or placed into the cold cleaner in a manner that will minimize drag-out losses. [Regulation 6.18, section 4.2.4]

(5) Cleaned parts shall be drained for at least 15 seconds or until dripping ceases, whichever is longer. Parts having cavities or blind holes shall be tipped or rotated while the part is draining. During the draining, tipping, or rotating, the parts shall be positioned so that the solvent drains directly back to the cold cleaner. [Regulation 6.18, section 4.2.5]

(6) A spill during solvent transfer shall be cleaned immediately, and the wipe rags or other sorbent material shall be immediately stored in a covered container for disposal or recycling, unless enclosed storage of these items is not allowed by fire protection authorities. [Regulation 6.18, section 4.2.6]

(7) Sponges, fabric, wood, leather, paper products, and other absorbent material shall not be cleaned in a cold cleaner. [Regulation 6.18, section 4.2.7]

(8) The owner or operator shall not operate a cold cleaner using a solvent with a vapor pressure that exceeds 1.0 mmHg (0.019 psi) measured at 20° C (68° F). [Regulation 6.18, section 4.3.2]

S2. Monitoring and Record Keeping
[Regulation 2.16, section 4.1.9.1 and 4.1.9.2]

The owner or operator shall maintain the following records for a minimum of five years and make the records readily available to the District upon request.

a. VOC

i. The owner or operator shall maintain records that include the following for each purchase: [Regulation 6.18, section 4.4.2]

(1) Name and address of the solvent supplier;

(2) Date of the purchase;

(3) Type of the solvent; and

(4) Vapor pressure of the solvent, measured in mm_{Hg} at 20° C.

S3. Reporting
[Regulation 2.16, section 4.1.9.3]

The owner or operator shall report in accordance with General Condition G14.

Emission Unit U5: Plasma Cutters

Applicable Regulations

FEDERALLY ENFORCEABLE REGULATIONS		
Regulation	**Title**	**Applicable Sections**
2.04	Construction or Modification of Major Sources In or Impacting Upon Non-Attainment Areas (Emission Offset Requirements)	1, 2, 3, 5, 9
2.05	Prevention of Significant Deterioration of Air Quality	All
7.08	Standards of Performance for New Process Operations	1, 2, 3

DISTRICT ONLY ENFORCEABLE REGULATIONS		
Regulation	**Title**	**Applicable Sections**
5.00	Definitions	1, 2
5.01	General Provisions	1 through 2
5.20	Methodology for Determining Benchmark Ambient Concentration of a Toxic Air Contaminant	1 through 6
5.21	Environmental Acceptability for Toxic Air Contaminants	1 through 5
5.22	Procedures for Determining the Maximum Ambient Concentration of a Toxic Air Contaminant	1 through 5
5.23	Categories of Toxic Air Contaminants	1 through 6
STAR regulations are 5.00, 5.01, 5.20, 5.21, 5.22, and 5.23		

Equipment

Emission Point	Description	Install Date	Applicable Regulations	Control ID	Release ID
E11	"Big Messer": Messer Cutting Systems, model 4514, incorporating: Two Hypertherm Hyperformance Plasma HPR400XD plasma cutters, cutting table, slagger table.	2011	STAR, 2.04, 2.05, 7.08	C8	Vent indoors
E14	"Little Messer": Messer Cutting Systems, model 5815, incorporating: 1 Hypertherm Hyperformance Plasma HPR400XD plasma cutters, cutting table, slagger table.	2013	STAR, 7.08	C9	Vent indoors

Control Devices

Control ID	Description	Control Efficiency
C8	Donaldson Torit DFT 4-32, 7000 cfm cartridge air filter unit.	98% [14]
C9	Donaldson Torit DFT 3-24, 7000 cfm cartridge air filter unit.	98% [14]

[14] This is the District pre-approved control efficiency for cartridge air filters.

U5 Specific Conditions

S1. Standards
[Regulation 2.16, section 4.1.1]

a. NO_x

i. The owner or operator shall not allow any NOx fumes in excess of 300 ppm by volume, expressed as NO_2, to be discharged into the atmosphere from either E11 or E14 from any air pollution control equipment installed on the equipment.[15] [Regulation 7.08, section 4]

b. Opacity

i. The owner or operator shall not allow visible emissions from either plasma cutter or control device to equal or exceed 20% opacity.
[Regulation 7.08, section 3.1.1]

c. PM / PM_{10} / $PM_{2.5}$

i. The owner or operator shall not allow PM emissions from either plasma cutter E11 or E14 to exceed 2.34 lb/hr based on actual operating hours in a calendar day. [Regulation 7.08, section 3.1.2]

ii. For emission point E11, the owner or operator shall limit the annual PM emissions to less than 25 tons, PM_{10} emissions to less than 15 tons, and $PM_{2.5}$ emissions to less than 10 tons per 12-consecutive-month.[16]
[Regulation 2.04, section 1 and Regulation 2.05, section 1]

iii. At all time, including periods of startup, shutdown, and malfunction, the owner or operator shall, to the extent practicable, maintain and operate the plasma cutter (E11) including associated particulate control device (C8) in a manner consistent with good air pollution control practice for minimizing emissions.[17] [Regulation 1.05, section 5]

[15] A compliance demonstration was completed on February 27, 2013 and it has been determined that the NOx emission standard cannot be exceeded uncontrolled.

[16] Emission point E11 has the potential to exceed these NSR/PSD significant emission rates. These limits were established to avoid the requirements established by District Regulations 2.04: *Construction or Modification of Major Sources In or Impacting Upon Non-Attainment Areas* (for $PM_{2.5}$) and 2.05: *Prevention of Significant Deterioration of Air Quality* (for PM_{10}).

[17] Uncontrolled emissions from emission point E11 may exceed the lb/hr PM standard and the NSR/PSD significant emission rates. Therefore, the owner or operator is required to operate the control devices to meet the PM standards.

d. TAC

i. The owner or operator shall not allow TAC emissions to exceed the amounts shown in any 12-consecutive-month period.[18]
[Regulation 5.21, section 4.3]

Table 4 - Emission unit U5 TAC emission standards [19]

Emission Points	Mn	Ni	Cr^{+3}	Cr^{+6}
E11-'Big Messer' Plasma cutter	De Minimis Values	1.84 (lb/12 consecutive month)	De Minimis Values	0.18 (lb/12 consecutive month)
E14-'Little Messer' Plasma cutter	De Minimis Values	19.38 (lb/12 consecutive month)	De Minimis Values	0.35 (lb/12 consecutive month)

ii. At all time, including periods of startup, shutdown, and malfunction, the owner or operator shall, to the extent practicable, maintain and operate the plasma cutter (E11 and E14) including associated particulate control device (C8 and C9) in a manner consistent with good air pollution control practice for minimizing emissions.[20]
[Regulation 1.05, section 5] [Regulation 5.21, section 4.2 and section 4.3]

iii. See Plantwide Requirements.

S2. Monitoring and Record Keeping
[Regulation 2.16, section 4.1.9.1 and 4.1.9.2]

The owner or operator shall maintain the following records for a minimum of five years and make the records readily available to the District upon request.

a. NO_x

i. There are no routine monitoring and recordkeeping requirements for this pollutant.

b. Opacity

i. The owner or operator shall, monthly, conduct a one-minute visible emissions survey, during normal operation, of the emission points. No more

[18] These TAC emission limits for E11 and E14 are established based on controlled PTE calculated using TAC concentrations in PM emissions. The TAC concentrations were determined from data submitted by Caldwell Tanks on 27 Sept, 2016 as a supplement to their Title V renewal application: for E11: Mn-1.2%, Ni-0.2%, Cr^{+3}-0.1%; Cr^{+6}-0.02%; for E14: Mn-2%, Ni-11%, Cr^{+3}-19%, Cr^{+6}-3.8%.

[19] Current De Minimis values: Mn – 24 lb/yr, 0.027 lb/hr; Cr^{+3} – 0.1 lb/8 hr, 0.1 lb/hr

[20] It has been demonstrated that the uncontrolled emissions from the plasma cutters cannot meet the EA goals specified in Regulation 5.21. Therefore, the owner or operator is required to operate the control devices to meet the TAC standards.

than four emission points shall be observed simultaneously. The opacity surveys can be performed on the building exhaust points if the process is inside an enclosure.

ii. At emission points where visible emissions are observed, the owner or operator shall initiate corrective action within eight hours of the initial observation. If the visible emissions persist, the owner or operator shall perform or cause to be performed a Method 9, in accordance with 40 CFR Part 60, Appendix A, within 24 hours of the initial observation.

iii. The owner or operator shall, monthly, maintain records of the results of all visible emissions surveys and tests. Records of the results of any visible emissions survey shall include the date of the survey, the name of the person conducting the survey, whether or not visible emissions were observed, and what if any corrective action was performed. If an emission point is not being operated during a given month, then no visible emission survey needs to be performed and a negative declaration shall be entered in the record.

c. PM / PM_{10} / $PM_{2.5}$

i. The owner or operator shall, at least once per calendar month, perform a visual inspection of the structural and mechanical integrity of the dust collector (C8 and C9) for signs of damage, air leakage, corrosion, etc. and repair as needed. Maintain monthly records of these inspections of the structural and mechanical integrity of the baghouses. The records shall include:

(1) the date of the inspection,

(2) the name of the person that performed the inspection,

(3) identification and description of any equipment defects observed, and

(4) the date of repair or replacement of defective components.

ii. The owner or operator shall maintain daily records of the hours of operation of each plasma cutter E11 and E14.

iii. The owner or operator shall maintain daily records of any periods of time where the plasma cutter E11 was operating and the control device C8 was not operating or a declaration that the control device operated at all times that day when the process was operating.

iv. If there is any time that the control device C8 is bypassed or not in operation when the process is operating, then the owner or operator shall keep a record of the following for each bypass event:

(1) Date;

(2) Start time and stop time;

(3) Identification of the control device and process equipment;

(4) PM emissions during the bypass in lb/hr;

(5) Summary of the cause or reason for each bypass event;

(6) Corrective action taken to minimize the extent or duration of the bypass event; and

(7) Measures implemented to prevent reoccurrence of the situation that resulted in the bypass event.

(8) If this event is due to an upset condition, you must report as specified in District regulation 1.07, section 4.

v. The owner or operator shall calculate the monthly and 12-consecutive-month PM, PM_{10}, and $PM_{2.5}$ emissions from each plasma cutter E11 and E14 using the methodology described in Attachment A.

d. TAC

i. The owner or operator shall maintain daily records of any periods of time where the plasma cutters E11 and E14 was operating and the control devices C8 and C9 was not operating or a declaration that the control devices operated at all times that day when the process was operating.

ii. If there is any time that the control device C8 or C9 is bypassed or not in operation when the process is operating, then the owner or operator shall keep a record of the following for each bypass event:

(1) Date;

(2) Start time and stop time;

(3) Identification of the control device and process equipment;

(4) TAC emissions for each TAC. The resulting emissions estimate shall be accounted for in any 12 consecutive month total emissions for each set of consecutive 12 month periods which includes the bypass event;

(5) Summary of the cause or reason for each bypass event;

(6) Corrective action taken to minimize the extent or duration of the bypass event; and

(7) Measures implemented to prevent reoccurrence of the situation that resulted in the bypass event.

(8) If this event is due to an upset condition, you must report as specified in District regulation 1.07, section 4.

iii. The owner or operator shall calculate the monthly and 12-consecutive-month TAC emissions for any TAC with an emission standard. [21]

iv. See Plantwide Requirements.

S3. Reporting

[Regulation 2.16, section 4.1.9.3]

The owner or operator shall report the following information, as required by General Condition G14:

a. NO_x

i. There are no routine reporting requirements for this pollutant.

b. Opacity

i. Any deviation from the requirement to perform monthly visual emission surveys or Method 9 determinations;

ii. Any deviation from the requirement to record the results of each VE survey and Method 9 determination performed;

iii. The number, date, and time of each VE Survey where visible emissions were observed and the results of the Method 9 determination performed;

iv. Identification of all periods of exceeding an opacity standard; and

v. Description of any corrective action taken for each exceedance of the opacity standard.

c. PM / PM_{10} / $PM_{2.5}$

i. All periods of exceeding a PM emission standard during a reporting period, The report shall include the following:

(1) Emission Unit ID number and emission point ID number;

(2) The date and duration (including the start and stop time) during which a deviation occurred;

(3) The quantity of excess emissions;

(4) Summary information on the cause or reason for excess emissions;

(5) Corrective action taken to minimize the extent and duration of each excess emissions event;

[21] TAC emissions are determined as a fraction of the PM emissions, as defined by Attachment A - Calculation Methodology.

(6) Measures implemented to prevent reoccurrence of the situation that resulted in excess PM emissions.

ii. Any deviation from the requirement to perform monthly visual inspection of the structural and mechanical integrity of the control devices (C8 and C9).

iii. Any deviation from the requirement to use the associated control device C8 at all times the plasma cutter E11 is in operation. The report shall include the following:

(1) The date and duration (including the start and stop time) of each by-pass to the atmosphere;

(2) Calculated quantity of PM emitted, in pounds, for each bypass;

(3) Corrective action taken as a result of the baghouse bypass;

(4) Summary information on the cause or reason for the baghouse bypass and measures implemented to prevent reoccurrence of the bypass.

iv. Monthly and 12-consecutive-month PM, PM_{10}, and $PM_{2.5}$ emissions using the methodology described in Attachment A.

d. TAC

i. Actual TAC emissions at each emission point for each TAC with an emission standard, using the methodology described in Attachment A.

ii. Any deviation from the requirement to use the associated control devices C8 and C9 at all times the plasma cutters E11 and E14 are in operation. The report shall include the following:

(1) The date and duration (including the start and stop time) of each by-pass to the atmosphere;

(2) Calculated quantity of TACs emitted, in pounds, for each bypass;

(3) Corrective action taken as a result of the baghouse bypass;

(4) Summary information on the cause or reason for the bypass and measures implemented to prevent reoccurrence of the bypass.

iii. See Plantwide Requirements.

Emission Unit U7: Emergency Generators

Applicable Regulations

FEDERALLY ENFORCEABLE REGULATIONS		
Regulation	**Title**	**Applicable Sections**
40 CFR 60, Subpart IIII	Standards of Performance for Stationary Compression Ignition Internal Combustion Engines	All
40 CFR 63, Subpart ZZZZ	National Emission Standard for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines	All

DISTRICT ONLY ENFORCEABLE REGULATIONS		
Regulation	**Title**	**Applicable Sections**
5.00	Definitions	1, 2
5.01	General Provisions	1 through 2
5.02	Adoption and Incorporation by Reference of National Emission Standards for Hazardous Air Pollutants	1, 2, 4.87, 5, 6
5.20	Methodology for Determining Benchmark Ambient Concentration of a Toxic Air Contaminant	1 through 6
5.21	Environmental Acceptability for Toxic Air Contaminants	1 through 5
5.22	Procedures for Determining the Maximum Ambient Concentration of a Toxic Air Contaminant	1 through 5
5.23	Categories of Toxic Air Contaminants	1 through 6
7.02	Adoption and Incorporation by Reference of Federal New Source Performance Standards	1, 2, 3.91, 4, 5
STAR regulations are 5.00, 5.01, 5.20, 5.21, 5.22, and 5.23		

Equipment

Emission Point	Description	Install Date	Applicable Regulations	Control ID	Release ID
I5A	Emergency generator, make Caterpillar, model 3360B-DI, equipped with a 250 kW diesel engine and a 200 gallons diesel storage tank.[22] Manufactured 1999 (Insignificant Activity)	2009	STAR,[23] 5.02, 40 CFR 63, subpart ZZZZ	N/A	S5A
I5B	Emergency generator, make Cummins, model DQDAA-6380778, equipped with a 250 kW diesel engine and a 500 gallons diesel storage tank.[22] Manufactured 2011 (Insignificant Activity)	2011	STAR,[23] 5.02, 7.02, 40 CFR 60, subpart IIII; 40 CFR 63, subpart ZZZZ	N/A	S5B

Control Devices

There are no control devices associated with this emission unit.

[22] These engines (I5A and I5B) are subject to 40 CFR 63 Subpart ZZZZ, National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines, because it involves a stationary reciprocating internal combustion engine (RICE) located at a major source of HAP emissions. Engine I5B is also subject 40 CFR 60 Subpart IIII since it is a new compress ignition (CI) engine according to its manufacture date and installation date.

[23] The equipment in this emission unit is *de minimis* for STAR by definition, per Regulation 5.21, section 2.3.

U7 Specific Conditions

S1. Standards
[Regulation 2.16, section 4.1.1]

a. HAP

For emission point I5A:

i. For an existing stationary CI RICE located at a major source of HAP emissions, you must comply with the applicable emission limitations, operating limitations, and other requirements no later than May 3, 2013. [40 CFR 63.6595(a)(1)]

ii. The owner or operator of an existing stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions shall comply with the following requirements in Table 2c.(1) to this subpart, as the following: [40 CFR 63.6602)]

(1) The owner or operator shall change the oil and filter every 500 hours of operation or annually, whichever comes first. The owner or operator has the option to utilize an oil analysis program as described in 40 CFR 63.6625(i) or (j) in order to extend the specified oil change requirement in Table 2d of this subpart. [40 CFR 63, Subpart ZZZZ, Table 2c (1)(a)]

(2) The owner or operator shall inspect the air cleaners every 1,000 hours of operation or annually, whichever comes first, and replace as necessary. [40 CFR 63, Subpart ZZZZ, Table 2c (1)(b)]

(3) The owner or operator shall inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary. [40 CFR 63, Subpart ZZZZ, Table 2c (1)(c)]

(4) During periods of startup, minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes. [40 CFR 63, Subpart ZZZZ, Table 2c.(1)]

iii. General requirements for complying with 40 CFR 63, Subpart ZZZZ:

(1) You must be in compliance with the emission limitations, operating limitations, and other requirements in this subpart that apply to the RICE at all times. [40 CFR 63.6605(a))

(2) At all times you must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require you to make any further efforts

to reduce emissions if levels required by this standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source. [40 CFR 63.6605(b)]

iv. You must demonstrate continuous compliance with each emission limitation, operating limitation, and other requirements in Table 2c.(1) to this subpart that apply to you according to methods specified in Table 6 to this subpart.
[40 CFR 63.6640(a)]

v. You must report each instance in which you did not meet each emission limitation or operating limitation in Table 2c.(1) to this subpart that apply to you. These instances are deviations from the emission and operating limitations in this subpart. These deviations must be reported according to the requirements in 40 CFR 63.6650. [40 CFR 63.6640(b)]

vi. You must operate the emergency stationary RICE according to the requirements in the following. In order for the engine to be considered an emergency stationary RICE under this subpart, any operation other than emergency operation, maintenance and testing for 50 hours per year is prohibited. If the owner or operator does not operate the engine according to the requirements in paragraphs (f)(1) through (3) of this section, the engine will not be considered an emergency engine under this subpart and must meet all requirements for non-emergency engines.
[40 CFR 63.6640(f)]

(1) There is no time limit on the use of the emergency stationary RICE in emergency situations. [40 CFR 63.6640(f)(1)]

(2) You may operate the emergency stationary RICE for any combination of the purposes specified in paragraphs (f)(2)(i) through (iii) of this section for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by paragraphs (f)(3) and (4) of this section counts as part of the 100 hours per calendar year allowed by this paragraph (f)(2).
[40 CFR 63.6640(f)(2)]

(a) Emergency stationary RICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The owner or operator may petition the Administrator for approval of additional hours to be used for

maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency RICE beyond 100 hours per calendar year. [40 CFR 63.6640(f)(2)(i)]

(3) Emergency stationary RICE located at major sources of HAP may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing. The 50 hours per year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity. [40 CFR 63.6640(f)(3)]

vii. For emission point I5B: A new compression ignition engine must meet the requirements of 40 CFR 63, Subpart ZZZZ by meeting the requirements of 40 CFR 60, Subpart IIII. There are no further requirements for this engine in Subpart ZZZZ. [40 CFR 63.6590(c)(6)]

b. Unit Operation

For emission point I5B:

i. The owner or operator of 2007 model year or later emergency stationary CI ICE with a displacement of less than 30 liters per cylinder that are not fire pump engines must comply with the emission standards for new nonroad CI engines in 40 CFR 60.4202, for all pollutants, for the same model year and maximum engine power for their 2007 model year and later emergency stationary CI ICE. [40 CFR 60.4205(b)]

ii. Stationary CI internal combustion engine manufacturers must certify their 2007 model year and later emergency stationary CI ICE with a maximum engine power less than or equal to 2,237 KW (3,000 HP) and a displacement of less than 10 liters per cylinder that are not fire pump engines to the emission standards specified in paragraphs (a)(1) through (2) of this section. [40 CFR 60.4202(a)]

(1) For engines with a rated power greater than or equal to 37 KW (50 HP), the Tier 2 or Tier 3 emission standards for new nonroad CI engines for the same rated power as described in 40 CFR part 1039, appendix I, for all pollutants and the smoke standards as specified in 40 CFR 1039.105 beginning in model year 2007. [40 CFR 60.4202(a)(2)]

Table 4 – Exhaust emission standards for engines: 130<kW<560

unit: g/KW-hr	PM	NOx	NMHC	NO_x + NMHC	CO
Emission standards (40 CFR 1039, Table 3 to Appendix I)	0.30	-	-	4.0	3.5
Smoke emission standard (40 CFR 1039.105)	1) 20% during the acceleration mode; 2) 15% during the lugging mode; 3) 50% during the peaks in either the acceleration or lugging modes.				

iii. The owner or operator must operate and maintain stationary CI ICE that achieve the emission standards as required in 40 CFR 60.4205 over the entire life of the engine. [40 CFR 60.4206]

iv. Beginning October 1, 2010, the owner or operator of a stationary CI ICE subject to this subpart with a displacement of less than 30 liters per cylinder that uses diesel fuel shall use diesel fuel that meets the requirements of 40 CFR 80.510(b) for nonroad diesel fuel, except that any existing diesel fuel purchased (or otherwise obtained) prior to October 1, 2010, may be used until depleted: [40 CFR 60.4207(b)]

(1) Sulfur content: 15 parts per million (ppm) maximum for NR diesel fuel. [40 CFR 80.510(b)(1)(i)]

(2) A minimum cetane index of 40; or [40 CFR 80.510(b)(2)(i)]

(3) A maximum aromatic content of 35 volume percent. [40 CFR 80.510(b)(2)(ii)]

v. The owner or operator that must comply with the emission standards specified in 40 CFR 60 Subpart IIII shall do all of the following: [40 CFR 60.4211(a)]

(1) Operate and maintain the stationary CI internal combustion engine and control device according to the manufacturer's emission-related written instructions; [40 CFR 60.4211(a)(1)]

(2) Change only those emission-related settings that are permitted by the manufacturer; [40 CFR 60.4211(a)(2)]

vi. The owner or operator shall purchase an engine certified to the emission standards in 40 CFR 60.4205(b), as applicable for the same model year and maximum engine power.[24] The engine must be installed and configured according to the manufacturer's specifications. [40 CFR 60.4211(c)]

vii. In order for the engine to be considered an emergency stationary ICE under this subpart, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in non-emergency

[24] An updated Certificate of Conformity for engine I5B was received on February 11, 2022.

situations for 50 hours per year, as described in 60 CFR 60.4211(f)(1) through (3), is prohibited. If the owner or operator does not operate the engine according to the requirements in 60 CFR 60.4211(f)(1) through (3), the engine will not be considered an emergency engine under this subpart and must meet all requirements for non-emergency engines.
[40 CFR 60.4211(f)]

(1) There is no time limit on the use of emergency stationary ICE in emergency situations. [40 CFR 60.4211(f)(1)]

(2) The owner or operator may operate the emergency stationary ICE for any combination of the purposes specified in 60 CFR 60.4211(f)(2)(i) through (iii) for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by 60 CFR 60.4211(f)(3) counts as part of the 100 hours per calendar year allowed by this paragraph.
[40 CFR 60.4211(f)(2)]

(a) Emergency stationary ICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency ICE beyond 100 hours per calendar year. [40 CFR 60.4211(f)(2)(i)]

(3) Emergency stationary ICE may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in 40 CFR 60.4211(f)(2). Except as provided in 40 CFR 60.4211(f)(3)(i), the 50 hours per calendar year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity.
[40 CFR 60.4211(f)(3)]

viii. If you do not install, configure, operate, and maintain your engine and control device according to the manufacturer's emission-related written instructions, or you change emission-related settings in a way that is not permitted by the manufacturer, you must demonstrate compliance as follows: [40 CFR 60.4211(g)]

(1) You must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, you must conduct an initial performance test to demonstrate compliance with applicable emission standards within 1 year after an engine and control device is no longer installed , configured, operated and, in accordance with the manufacturer's emission-related written instructions, or within 1 year after you change emission-related settings in a way that is not permitted by the manufacturer.
[40 CFR 60.4211(g)(2)]

S2. Monitoring and Record Keeping
[Regulation 2.16, section 4.1.9.1 and 4.1.9.2]

The owner or operator shall maintain the following records for a minimum of five years and make the records readily available to the District upon request.

a. HAP

For emission point I5A:

i. Monitoring, installation, collection, operation, and maintenance requirements: [40 CFR 63.6625]

(1) The owner or operator shall operate and maintain the stationary RICE and after-treatment control device (if any) according to the manufacturer's emission-related written instructions or develop your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions. [40 CFR 63.6625(e)]

(2) The owner or operator shall install a non-resettable hour meter if one is not already installed. [40 CFR 63.6625(f)]

(3) The owner or operator shall minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the emission standards applicable to all times other than startup. [40 CFR 63.6625(h)]

(4) The owner or operator has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d to this subpart. The oil analysis must be performed at the same frequency specified for changing the oil in Table 2c or 2d to this subpart. The analysis program must at a minimum analyze the following three parameters: Total Base Number, viscosity, and percent water content. The condemning limits for these parameters

are as follows: Total Base Number is less than 30 percent of the Total Base Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 business days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 business days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [40 CFR 63.6625(i)]

ii. Recordkeeping requirements: [40 CFR 63.6655]

(1) The owner or operator shall keep the following records that apply to your RICE: [40 CFR 63.6655(a)]

(a) A copy of each notification and report that you submitted to comply with this subpart, including all documentation supporting any Initial Notification or Notification of Compliance Status that you submitted, according to the requirement in 40 CFR 63.10(b)(2)(xiv).
[40 CFR 63.6655(a)(1)]

(b) Records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. [40 CFR 63.6655(a)(2)]

(c) Records of all required maintenance performed on the air pollution control and monitoring equipment.
[40 CFR 63.6655(a)(4)]

(d) Records of actions taken during periods of malfunction to minimize emissions in accordance with 40 CFR 63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation.
[40 CFR 63.6655(a)(5)]

(2) The owner or operator shall keep the records required in Table 6 of this subpart to show continuous compliance with each emission or operating limitation that applies to the RICE, as the following:
[40 CFR 63.6655(d)]

(a) Operating and maintaining the stationary RICE according to the manufacturer's emission-related operation and maintenance instructions; or (Table 6, section 9)

(b) Develop and follow your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions. (Table 6, section 9)

(3) The owner or operator shall keep records of the maintenance conducted on the stationary RICE in order to demonstrate that you operated and maintained the stationary RICE and after-treatment control device (if any) according to your own maintenance plan. [40 CFR 63.6655(e)]

(4) The owner or operator shall keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The owner or operator must document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation. If the engine is used for the purposes specified in 40 CFR 63.6640(f)(2)(ii) or (iii) or 40 CFR 63.6640(f)(4)(ii), the owner or operator must keep records of the notification of the emergency situation, and the date, start time, and end time of engine operation for these purposes. [40 CFR 63.6655(f)]

iii. <u>For emission point I5B:</u> There are no compliance monitoring or record keeping requirements for HAP.

b. Unit Operation

<u>For emission point I5B:</u>

i. The owner or operator of an emergency stationary CI internal combustion engine that does not meet the standards applicable to non-emergency engines shall install a non-resettable hour meter prior to startup of the engine. [40 CFR 60.4209(a)]

ii. The owner or operator is not required to submit an initial notification. If the emergency engine does not meet the standards applicable to non-emergency engines in the applicable model year, the owner or operator shall keep records of the operation of the engine in emergency and non-emergency service that are recorded through the non-resettable hour meter. The owner shall record the time of operation of the engine and the reason the engine was in operation during that time. [40 CFR 60.4214(b)]

iii. If the stationary CI internal combustion engine is equipped with a diesel particulate filter, the owner or operator must keep records of any corrective action taken after the backpressure monitor has notified the owner or operator that the high backpressure limit of the engine is approached. [40 CFR 60.4214(c)]

iv. The owner or operator shall maintain records of the fuel MSDS sheets and receipts showing dates, amounts of fuel purchased, sulfur content of fuel purchased and supplier's name and address.

S3. Reporting
[Regulation 2.16, section 4.1.9.3]

The owner or operator shall report the following information, as required by General Condition G14:

a. HAP

i. For emission point I5A: If an emergency engine is operating during an emergency and it is not possible to shut down the engine in order to perform the management practice requirements on the schedule required in Table 2d of this subpart, or if performing the management practice on the required schedule would otherwise pose an unacceptable risk under federal, state, or local law, the management practice can be delayed until the emergency is over or the unacceptable risk under federal, state, or local law has abated. The management practice should be performed as soon as practicable after the emergency has ended or the unacceptable risk under federal, state, or local law has abated. Sources must report any failure to perform the management practice on the schedule required and the federal, state or local law under which the risk was deemed unacceptable.
[40 CFR 63, Subpart ZZZZ, Footnote 2 of Table 2c]

ii. For emission point I5B: There are no routine compliance reporting requirements for this equipment.

b. Unit Operation

i. For emission point I5B: The owner or operator is not required to submit an initial notification. (40 CFR 60.4214(b))

Permit Shield

The owner or operator is hereby granted a permit shield that shall apply as long as the owner or operator demonstrates ongoing compliance with all conditions of this permit. Compliance with the conditions of this permit shall be deemed compliance with all applicable requirements of the regulations cited in this permit as of the date of issuance, pursuant to Regulation 2.16, section 4.6.1.

Off-Permit Documents

There are no off-permit documents associated with this Title V permit.

Alternative Operating Scenario

The company requested no alternative operating scenario in its Title V application.

Insignificant Activities

Equipment	Qty.	PTE (ton/yr)	Regulation Basis
Used oil aboveground storage tank, 250 gal	1	VOC: 0.01	Regulation 1.02, Appendix A
Small space heaters and make-up air units, natural gas fired, capacity ranged 0.05- 0.395 MMBtu/hr [25] (All are indirect-fired units)	117	NOx: 0.11	Regulation 1.02, Appendix A
Research and development activities with potential emissions less than 5 tpy	2	0	Regulation 1.02, Appendix A
Closed system solvent distillation unit, make Finish Thompson, model LS-15D	1	0	Regulation 1.02, section 1.38.1.2
Pressurized VOC storage vessels	15	0	Regulation 1.02, Appendix A
Internal combustion engines, fixed or mobile	5	NO_x: 2.2 (max.)	Regulation 1.02, Appendix A
Separate and mostly mobile stations for performing welding, cutting, and gouging	54	PM_{10}: 1.7	Regulation 1.02, Appendix A
Wood-working operation	1	PM_{10}: 0.01	Regulation 1.02, Appendix A
Nitrogen and Oxygen storage tanks	402	0	Regulation 1.02, section 1.38.1.2
Paint and solvent storage containers, each less than 250 gallons	500	VOC: 1.3	Regulation 1.02, Appendix A

[25] Federal regulation 40 CFR 3, Subpart DDDDD states "You are subject to this subpart if you own or operate an industrial … boiler or process heater … that is located at, or is part of, a major source of HAP…" None of these units meets the definition of boiler or process heater set forth in this regulation. Therefore, the regulation is not applicable to these units.

Equipment	Qty.	PTE (ton/yr)	Regulation Basis
Portable cylinders of inflammable gases	200	VOC: 0.01	Regulation 1.02, Appendix A
Plate seamer using submerged arc welding	1	PM_{10}: 0.1	Regulation 1.02, section 1.38.1.2
Waste storage containers, 55-gallon drums	20	VOC: 0.01	Not regulated
Non-halogenated cold solvent parts washers with secondary reservoir (See Unit U3)	2	VOC: 0.32 each	Regulation 1.02, Appendix A
Direct-fired natural gas roof unit at North Paint Area, make Hartzell, model GR181, with a rated capacity of 1.95 MMBtu/hr. Installed 1968.[25]	1	NO_x: 0.20	Regulation 1.02, section 1.38.1.2
Direct-fired natural gas roof unit at Balcony Area, make Hartzell, model GC402, with a rated capacity of 4.0 MMBtu/hr. Installed 1971.[25]	1	NO_x: 0.41	Regulation 1.02, section 1.38.1.2
Direct-fired natural gas ground units, with a rated capacity of 3.5 MMBtu/hr for each. Installed 2002.[25]	4	NO_x: 1.44	Regulation 1.02, section 1.38.1.2
Caterpillar 3360B-DI 250 kW diesel emergency generator. (See Unit U7)	1	NO_x: 2.21	Regulation 1.02, section 1.38.1.2
Cummins DQDAA-6380778 250 kW diesel emergency generator. (See Unit U7)	1	NO_x: 2.21	Regulation 1.02, section 1.38.1.2
Diesel fuel storage tank for Caterpillar engine, 200 gallons	1	VOC: 0.01	Regulation 1.02, Appendix A
Diesel fuel storage tank for Cummins engine, 500 gallons	1	VOC: 0.01	Regulation 1.02, Appendix A
Portable diesel or gasoline storage and refuel tank less than 500 gal	2	VOC: 0.1	Regulation 1.02, Appendix A
Containers, reservoirs, or tanks used exclusively for storage of lubricating oils or fuel oils with a vapor pressure of less than 10 mmHg at conditions of 20°C and 760 mmHg	30	VOC: 0.01	Regulation 1.02, Appendix A

1. Insignificant activities identified in District Regulation 1.02, Appendix A, may be subject to size or production rate disclosure requirements pursuant to Regulation 2.16, section 3.5.4.1.4.
2. Insignificant activities identified in District Regulation 1.02, Appendix A shall comply with generally applicable requirements as required by Regulation 2.16, section 4.1.9.4.
3. The Insignificant Activities Table is correct as of the date the permit was proposed for review by U.S. EPA, Region 4.
4. Emissions from Insignificant Activities shall be reported in conjunction with the reporting of annual emissions of the facility as required by the District.

5. The owner or operator shall submit an updated list of insignificant activities that occurred during the preceding year pursuant to Regulation 2.16, section 4.3.5.3.6.

6. The owner or operator may elect to monitor actual throughputs for each of the insignificant activities and calculate actual annual emissions or use Potential to Emit (PTE) to be reported on the annual emission inventory.

7. The District has determined pursuant to Regulation 2.16, section 4.1.9.4 that no monitoring, record keeping, or reporting requirements apply to the insignificant activities listed, except for the equipment that has an applicable regulation and permitted under an insignificant activity (IA) unit.

Attachment A - Calculation Methodology

In general, emissions are calculated by multiplying the process throughput or hours of operation by the emission factor and by the control efficiency of any control device. For example:

$$E_x = \left(throughput\left[\frac{lb}{hr}\right]\right) \bullet \left(Emission\ factor\left[\frac{lb\ emission}{lb_{thruput} hr\ of\ operation}\right]\right) \bullet (1 - control\ efficiency)$$

Alternatively, the mass balance method considers the total throughput and the fraction of that throughput that is made up by the pollutant under consideration. For example:

$$E_x = \left(throughput\left[\frac{gal}{yr}\right]\right) \bullet (pollutant\ percentage) \bullet (1 - control\ efficiency)$$

Other methods of determining emissions may be used if proposed by the Company and approved in writing by the District, or if required by permit conditions.

Emission Source		Description	Pollutant	Emission factor	Source	Control Efficiency	
Unit	Point					Value	Method
U1	E1	Wheelabrator	PM	35.54 lb/hr	Stack test	98%	Note a-(2)
				0.179 lb/10^3 lb $_{abrasive}$ (Note b)			
			PM_{10}	PM/2	AP42-13.2.6	---	---
			$PM_{2.5}$	PM_{10}/10	AP42-13.2.6	---	---
			Cr	0.1%*PM	Company data (Note d)	---	---
			Mn	1.2%*PM			
			Ni	0.2%*PM			
	E2	Clemco Shot Blast Booth	PM	1.14 lb/hr	AP42-13.2.6, (Note e)	98%	Note a-(2)
			PM_{10}	PM/2	AP42-13.2.6	98%	
			$PM_{2.5}$	PM_{10}/10	AP42-13.2.6	98%	
			Cr	0.1%*PM	Company data, (Note d)	---	---
			Mn	1.2%*PM			
			Ni	0.2%*PM			
	E3	Pipeabrator	PM	23.63 lb/hr	Stack test	98%	Note a-(2)
				0.179 lb/10^3 lb $_{abrasive}$ (Note c)			
			PM_{10}	PM/2	AP42-13.2.6	---	---
			$PM_{2.5}$	PM_{10}/10	AP42-13.2.6	---	---
			Cr^{+3}	0.1%*PM	Company data, (Note d)	---	---
			Mn	1.2%*PM			
			Ni	0.2%*PM			
U2	E4	South paint booth	VOC/ HAP/TAC	Mass balance method		---	---
			PM	Mass balance method		95%	Note a-(2)
	E5	North paint booth	VOC/ HAP/TAC	Mass balance method		---	---

Emission Source		Description	Pollutant	Emission factor	Source	Control Efficiency	
Unit	Point					Value	Method
			PM HAP	Mass balance method		95%	Note a-(2)
U3	E6	Non-halogenated cold-solvent parts washer	VOC	Mass balance method		---	---
	E7					---	---
U5	E11	Plasma cutter, Messer 4514	PM	4.38 lb/hr	Note f. uncontrolled	98%	Note a-(2)
			PM_{10}	PM/2			
			$PM_{2.5}$	$PM_{10}/10$			
			Cr^{+3}	0.1%*PM	Company data (Note d)		
			Cr^{+6}	0.02%*PM			
			Mn	1.2%*PM			
			Ni	0.2%*PM			
	E14	Plasma cutter, Messer 5815	PM	1.68 lb/hr	Note f. uncontrolled	98%	Note a-(2)
			PM_{10}	PM/2			
			$PM_{2.5}$	$PM_{10}/10$			
			Cr^{+3}	19%*PM	Company data (Note d)		
			Cr^{+6}	0.2%*PM			
			Mn	2.0%*PM			
			Ni	11%*PM			
U7	I5A	Caterpillar 3360B-DI emergency generator engine	NO_x	3.14 g/HP•hr	Manufacturer's spec		
			CO	0.68 g/HP•hr			
			Hydro carbon	0.17 g/HP•hr			
			PM	0.16 g/HP•hr			
	I5B	Cummins DQDAA emergency generator engine	NMHC +NO_x	2.98 g/HP•hr	EPA spec: 40 CFR 1039.102		
			CO	2.6 g/HP•hr			
			PM	0.15 g/HP•hr			
I.A.s		Fuel oil or VOC storage tanks	VOC	TANKS4.0 Program or use PTE in I.A. table			
		Natural gas-fired heaters and make-up air units		See Note g.			
		Welding machines		See Note h.			
		Wood working equipment	PM, PM_{10}, $PM_{2.5}$	Wood waste = 5% wood material usage PM = 31% wood waste [26] PM_{10} = $PM_{2.5}$ = 0.37% wood waste			

Notes:

a. Control efficiency determination options:
(1) On-site stack test, 29 March 2011
(2) APCD default control efficiency

[26] Emission factors are taken from North Carolina Department of Environment and Natural Resources, Division of Air Quality "Estimating Emissions from Generation and Combustion of "Waste" Wood", Draft, July 15, 1998.

b. Based on the rated maximum abrasive throughput of 198,000 lb/hr, this rate is equivalent to the lb/hr rate.

$$\left(\frac{35.54\ lb_{PM}}{hour}\right)\left(\frac{1\ hour}{198000\ lb_{abrasive}}\right) = \frac{0.179\ lb_{PM}}{1000\ lb_{abrasive}}$$

c. Based on the rated maximum abrasive throughput of 132,000 lb/hr, this rate is equivalent to the lb/hr rate.

$$\left(\frac{23.63\ lb_{PM}}{hour}\right)\left(\frac{1\ hour}{132000\ lb_{abrasive}}\right) = \frac{0.179\ lb_{PM}}{1000\ lb_{abrasive}}$$

d. EF based on the base emission factor and the TAC content of the raw materials.

e. AP42 emission factor for sand blast @ 5 mph is 27 lb/1000 lb abrasive, uncontrolled. Emissions using steel shot are 10% of sand emissions, from the same source. Therefore, emission factor for steel shot is 2.7 lb/1000 lb abrasive, uncontrolled.

f. EF based on *Emission of Fume, Nitrogen Oxides and Noise in Plasma Cutting of Stainless and Mild Steel* by Bromsen et. al. Emission factor is for each cutting torch.

g. Emission factors for natural gas-fired heaters and make-up air units:

Pollutant	CAS No.	EF (lb/mmcf)	EF Source
NH3		0.49	FIRE
CO		84.00	AP-42, 1.4-1
NOx		100.00	AP-42, 1.4-1
PM (TSP)		0.52	2011 NEI
PM-Con		0.32	2011 NEI
PM10-Fil		0.20	2011 NEI
PM2.5-Fil		0.11	2011 NEI
SO2		0.60	AP-42, 1.4-2
VOC		5.50	AP-42, 1.4-2
1,4-Dichlorobenzene	106-46-7	1.20E-03	AP-42, 1.4-3
2-Methylnaphthalene	91-57-6	2.40E-05	AP-42, 1.4-3
3-Methylchloranthrene	56-49-5	1.80E-06	AP-42, 1.4-3
7,12-Dimethylbenz(a)Anthracene	57-97-6	1.60E-05	AP-42, 1.4-3
Acenaphthene	83-32-9	1.80E-06	AP-42, 1.4-3
Acenaphthylene	203-96-8	1.80E-06	AP-42, 1.4-3
Anthracene	120-12-7	2.40E-06	AP-42, 1.4-3
Arsenic	As	2.00E-04	AP-42, 1.4-4
Benz(a)anthracene	56-55-3	1.80E-06	AP-42, 1.4-3
Benzene	71-43-2	2.10E-03	AP-42, 1.4-3
Benzo(a)pyrene	50-32-8	1.20E-06	AP-42, 1.4-3
Benzo(b)fluoranthene	205-99-2	1.80E-06	AP-42, 1.4-3
Benzo(g,h,i)perylene	191-24-2	1.20E-06	AP-42, 1.4-3
Benzo(k)fluoranthene	205-82-3	1.80E-06	AP-42, 1.4-3
Beryllium	Be	1.20E-05	AP-42, 1.4-4
Cadmium	Cd	1.10E-03	AP-42, 1.4-4
Chromium VI	Cr	1.40E-03	AP-42, 1.4-4
Chrysene	218-01-9	1.80E-06	AP-42, 1.4-3
Cobalt	Co	8.40E-05	AP-42, 1.4-4
Dibenzo(a,h)anthracene	53-70-3	1.20E-06	AP-42, 1.4-3

Pollutant	CAS No.	EF (lb/mmcf)	EF Source
Fluoranthene	206-44-0	3.00E-06	AP-42, 1.4-3
Fluorene	86-73-7	2.80E-06	AP-42, 1.4-3
Formaldehyde	50-00-0	7.50E-02	AP-42, 1.4-3
Hexane	110-54-3	1.80E+00	AP-42, 1.4-3
Indeno(1,2,3-cd)pyrene	193-39-5	1.80E-06	AP-42, 1.4-3
Manganese	Mn	3.80E-04	AP-42, 1.4-4
Mercury	Hg	2.60E-04	AP-42, 1.4-4
Naphthalene	91-20-3	6.10E-04	AP-42, 1.4-3
Nickel	Ni	2.10E-03	AP-42, 1.4-4
Phenanthrene	85-01-8	1.70E-05	AP-42, 1.4-3
Pyrene	129-00-0	5.00E-06	AP-42, 1.4-3
Selenium	Se	2.40E-05	AP-42, 1.4-4
Toluene	108-88-3	3.40E-03	AP-42, 1.4-3

h. Emission factors for welding machines:

Descriptions	EF for PM (lb/1000 lb)	EF for Cr (10^{-1}/1000 lb)	EF for Co (10^{-1}/1000 lb)	EF for Ni (10^{-1}/1000 lb)	EF for Mn (10^{-1}/1000 lb)	EF for Cu (10^{-1}/1000 lb)
E6010	25.6	0.03	0	0.04	9.91	0.03
E7018	18.4	0.06	0.01	0.02	10.3	0.06
E7024	9.2	0.01	0	0	6.29	0.01
E70S	5.2	0.01	0.01	0.01	3.18	0.01
E70T	15.1	0.04	0	0.05	8.91	0.04
E71T	12.2	0.02	0.01	0.04	6.62	0.02
E309LT*	15.1	8.11	0	1.04	5.34	8.11
E316LT	10	5.22	0	0.55	5.44	5.22
308LSi SS Weld Wire**	5.24	5.24	0.01	1.84	3.46	5.24
E308	10.8	3.93	0.01	0.43	2.52	3.93

Attachment B - Protocol Checklist for a Performance Test

A complete protocol must include the following information

1. Facility name, location, and Plant ID number.
2. Responsible Official and environmental contact names.
3. Permit numbers that are requiring the test to be conducted.
4. Test methods to be used (*i.e.* EPA Method 1, 2, 3, 4, and 5).
5. Alternative test methods or description of modifications to the test methods to be used.
6. Purpose of the test including equipment and pollutant to be tested. (The purpose may be described in the permit that requires the test to be conducted or it may be to show compliance with a federal regulation or emission standard.)
7. Tentative test dates. (These may change but final notice is required at least 10 days in advance of the actual test dates in order to arrange for observation.)
8. Maximum rated production capacity of the system.
9. Production-rate goal planned during the performance test for demonstration of compliance (if appropriate, based on limits) and justification of the planned production rate, if less than the maximum rate.
10. Method to be used for determining rate of production during the performance test.
11. Method to be used for determining rate of production during subsequent operations of the process equipment to demonstrate compliance.
12. Description of normal operation cycles, if applicable.
13. Discussion of operating conditions that tend to cause worse case emissions. This is especially important to clarify if worst case emissions do not result from the maximum production rate.
14. Process flow diagram.
15. The type and manufacturer of the control equipment, if any.
16. The process and/or control equipment parameters to be monitored and recorded during the performance test. These parameters may include pressure drops, flow rates, pH, temperature, *etc*. The values achieved during the test may be required during subsequent operations to describe the operating parameters that are indicative of good operating performance.
17. How quality assurance and accuracy of the data will be maintained, including sample identification and chain-of-custody procedures, audit sample provider, and number of audit samples to be used, if applicable.
18. Diameter of the pipe, duct, stack, or flue to be tested.
19. Distances from the testing sample ports to the nearest upstream and downstream flow disturbances such as bends, valves, constrictions, expansions, and exit points for outlet and additionally for inlet.
20. The number of traverse points to be tested for the outlet and the inlet if required, using Method 1 in Appendix A-1 to 40 CFR Part 60.

The Stack Test Review fee must be submitted with each stack test protocol.

The current fee is listed on the APCD website (louisvilleky.gov/APCD)

Attachment C – Determination of Benchmark Ambient Concentration (BAC)

Category _____ Number _____

Compound name _____ CAS No. _____

Molecular weight _____

BAC_C = _____ µg/m³, annual BAC_{NC} = _____ µg/m³, _____ (avg period)

de minimis _____ lb/hr; _____ lb/_____; _____ lb/year

I. Carcinogen Risk - BAC_C (annual averaging period) Carcinogen ☐ YES ☐ NO

1. ☐ IRIS 10^{-6} risk = _____ µg/m³ URE = _____ $(\mu g/m^3)^{-1}$ Date _____
2. ☐ Cal 10^{-6} risk = _____ µg/m³ IUR = _____ $(\mu g/m^3)^{-1}$ Date _____
3. ☐ Mich 10^{-6} risk = _____ µg/m³ Date _____
4. ☐ NTP Part A ☐ YES ☐ NO Part B ☐ YES ☐ NO
5. ☐ IARC Group 1 ☐ YES ☐ NO Group 2A ☐ YES ☐ NO Group 2B ☐ YES ☐ NO
6. ☐ ATSDR
7. ☐ Sec. 3.3.4 Method # _____ 10^{-6} risk = _____ µg/m³ Date _____
8. ☐ Default 0.0004 µg/m³

II. Chronic Noncancer Risk - BAC_{NC} (averaging period as specified)

1. ☐ IRIS RfC = _____ µg/m³, annual Date _____
2. ☐ Cal REL = _____ µg/m³, annual Date _____
3. ☐ IRIS [1] RfD = _____ µg/kg/day × (70/20) = _____ µg/m³, annual Date _____
4. ☐ Mich ITSL = _____ µg/m³, _____ averaging period Date _____
5. ☐ TLV NIOSH = _____ µg/m³ × 0.01 = _____ µg/m³, 8-hour Date _____
6. ☐ RTECS [1] _____ = _____ µg/m³, annual Date _____

(describe calculation from Reg 5.20, sections 4.6 - 4.10)

7. ☐ Default 0.004 µg/m³

[1] To use data based upon an oral route of exposure, the District must make an affirmative determination that data are not available to indicate that oral-route to inhalation-route extrapolation is inappropriate.

III. *De minimis calculations*

1. ☐ Carcinogen BAC_C _____ µg/m³ × 0.54 = _____ lb/hour

   BAC_C _____ µg/m³ × 480 = _____ lb/year

2. ☐ Chronic Noncancer Risk _____ (averaging period)

   BAC_{NC} _____ µg/m³ × F factor = _____ lb/(avg period)

BAC averaging period	F factor for avg period			
	Annual	24 hour	8 hour	1 hour
Annual	480			0.54
24 hours		0.12		0.05
8 hours			0.02	0.02
1 hour				0.001

[Regulation 5.22, table 1]

Prepared by _____ Date _____